The Education Digest

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A Socio-Psychological Study

School Vandalism

NATHAN GOLDMAN

A VARIETY of causes for vandalism and damage to public schools have been posited by investigators. Some find the cause in the child, some in the parents, and some in the schools. We find a variety of causes ranging from inadequate custodial service and parental irresponsibility, to personality aberration in the child. Prescriptions for cure include such diverse techniques as putting screens on vulnerable windows, frequent police patrol of school-building areas, making the parents pay for damage, or improving the morale of students.

Actually, however, there has been no systematic research program to investigate the various possible causes of damage to public-school property. Believing that such a study might provide data leading to the understanding and control of vandalism, and, in addition to saving of money, might provide much needed information leading to understanding of this peculiar form of child behavior, we undertook to make just such a study of the public-school system of Syracuse, New York.

Nathan Goldman, Associate Professor of Sociology at Syracuse University, New York, was project director of a two-year vandalism study conducted under contract with the U.S. Office of Education. Condensed from his final report, A Socio-Psychological Study of School Vandalism, *published by Syracuse University Research Institute (1960), particularly pages 102–115.*

Since the everyday damage to windows, books, equipment, desks, walls, etc., constitutes a greater *total* cost to the schools than the few spectacular events which come to the attention of the public, it was decided to focus the investigation on a consideration of the socio-psychological differences between schools having different degrees of damage of the everyday variety. The school, thus, was the unit of study instead of the individual.

All of the 16 public junior-high

and senior-high schools in Syracuse participated in this two-year study. We sought for variables in schools rated high in damage and those rated low, variables that might be used to account for such differences. Each school was first examined twice, some three times. To obtain the additional information needed, teacher interviews, student questionnaires, and a history of each school all were used.

On the basis of the correlations obtained in the analysis of this data, the following conclusions were reached about the relations between certain observed variables and the amount of damage in the schools studied:

CONCLUSIONS

Low socio-economic status and high instability of the community.—It was shown that high damage is associated with the low socio-economic status of the census tract in which the school is located, the advanced age of the buildings, and the low occupational status of fathers of students. Two of our low socio-economic rank schools, however, did not have the expected high damage.

In the histories of the schools, our respondents stressed the *transiency* and *instability* of the area. It is very probable, therefore, that a low socio-economic level, coupled with instability and high rate of transiency, is characteristic of schools with high-damage rates. In such an area the student is less likely to identify with the conventional values of education and of property than in a more stable and middle-class neighborhood.

Change and instability in the school.—Frequent staff turnover or changing a large segment of the staff at one time may disrupt the functioning of the school. A change in the school program or introducing a new grade will create, at least temporarily, some disturbance in ordered relations. Rapid or extensive changes may affect definitions of conduct, increasing disorganization and the probability of deviant behavior by the students.

Personal identification with the school.—A relatively low level of interest in the academic program and a relatively low degree of self-identification with the school was characteristic of students in high-damage schools. Drop-out rates were strongly related to the damage rank of the school. It was indicated that dissatisfaction arose when students felt the curriculum did not meet their needs or when they felt that the school administration was not sufficiently concerned with student welfare. Teachers and parents in high-damage schools also seem to have lower identification with the school.

Administration and leadership.—Teachers in low-damage schools, in contrast to those in high-damage schools, reported that the administration in the school was democratic, strong, or rigid. The authoritarian nature of school administration was highlighted in the reports of students in high-damage schools

that they had little or no voice in planning school programs. In contrast, students in low-damage schools reported that they met regularly with the principal and helped plan school programs.

Interpersonal relations.—The nature of interpersonal relations in the school differed in high- and low-damage schools. Relations in high-damage schools between various groups appeared to be more limited and more formal than those in low-damage schools. Teacher-principal relations in high-damage schools also were reported to be on a much more formal level than those in low-damage schools.

The personality of the principal was frequently mentioned as an important factor in school morale. Feelings of insecurity, anxiety, or frustration in the principal were said to be communicated to members of his staff. Where all school personnel—including the custodian—were able to establish good rapport with students and communicate the approved conduct patterns to them, conventional attitudes prevailed. Destruction of property and other norm violations were low.

Welfare.—It was indicated in interviews and in school histories that where the curriculum did not meet the educational or vocational requirements of the students, dissatisfaction was high. Obsolescence of school apparatus, failure to repair broken equipment, overcrowding in classrooms, etc., were interpreted as lack of interest of the administration in the student welfare. Resentment was expressed by students overtly against the tangible aspects—the physical plant and equipment—of the school.

Thus, community change, changes in the school program, student population and staff, administrative leadership, degree and type of interpersonal relationships, and the extent to which the welfare needs are felt satisfied, are all related to disorganizations of personal relations and to vandalism. Teachers and school administrators will very probably find in these conclusions many implications not apparent to a social-science researcher not trained in the art of education.

As a social system, the school has a technology, a set of rules of conduct governing the relations between members, and an ideology or value system guiding the conduct of its members. Many of the circumstances generally associated with situations of societal strain or maladjustment were found to be characteristics of high-damage schools. Community instability and change, an excess of bureaucratization (in which rules become ends in their own right rather than means), predominance of formal relations, and a lack of communication between members are all evidence of societal strain.

IMPLICATIONS

What are some of the implications for educators that can be drawn from this study? For one thing, since community instability

and change were found significantly related to the amount of damage in a school, and since it is known that communities change in a fairly predictable way, the school should be located where these would be minimized.

Not only that, the curriculum should be kept abreast of changes in the composition of the student population and should be attuned to the students' needs. Teachers should be aware of changes in the interests of the student.

Rapid or frequent change in program, administrative procedures, or routines should be avoided. When changes in several areas of the school program or organization take place at one time without proper adjustment of the personnel involved, the strains created may lead to serious disruption of the school's operation.

There should also be easy two-way communication between all levels of school personnel to facilitate the exchange of information. A matter which seriously disturbed many teachers in our study was that the results of their disciplinary referrals to the principal were not communicated back to them. An involvement of the teacher in the principal's decision would give the teacher a sense of participation in the administration of the school.

Parents should be given the opportunity to get to know the teachers and to know the policies of the school administration. A closer identification of parents with the school will add to the better identification of their children with the school values and norms.

The role played by the principal is significant. Since the principal is the key figure in determining school policy and the administration of that policy, careful selection of the principal is essential. Care should be taken to see that his personality, educational philosophy, training, and ability as a leader are adequate for the job.

The administration and leadership of the school determines, to a large extent, the nature of the interpersonal and academic relations. These relations should be structured so as to increase identification of teachers, students, and parents with the school.

In the administration of the school, it is essential that the welfare of students and teachers be considered along with the formal task of education. Students or teachers who feel that the principal or the administration is not interested in their comfort and happiness, as well as the development of their intellects, will develop little feeling for the school.

From the point of view of the community, school vandalism is of concern because of its menace to the social order. Vandalism represents a simultaneous threat to two important values in our society—education and property. An attack on these two highly valued institutions by the child may be a portent for more serious attacks on society when he reaches the adult stage. •

Today's 14 *Points*

Recommendations for the Junior-High School

JAMES B. CONANT

In Education in the Junior High School Years

MY comments and recommendations for junior-high schools are based on a study I made with the assistance of a small staff during the school year 1959-60. We visited 237 schools systems in 23 states.

I have found great diversity with respect to the place of grades 7 and 8 in the organization of school systems. Indeed, there appears no end to the variety of organizational schemes. There is also no consensus whatever among experienced educators as to the place of grade 9 in the organizational framework. Should it be the top grade in a three-year, junior-high school or the bottom grade in a four-year high school? What has impressed me is the extent to which educators with considerable experience disagree about the organizational scheme.

As a result of the wide diversity in school organization, the professional disagreement, and my own observations, I conclude that the place of grades 7, 8, and 9 in the organization of a school system is of less importance than the program provided for adolescent youth. When enrolments are large enough, I am convinced that it is possible to provide the kind of experiences the pupils need regardless of the structure of the school system.

James B. Conant, former president of Harvard University, has completed a one-year study of public junior-high schools, financed by a grant from the Carnegie Corporation of New York. Reported from Education in the Junior High School Years, *published by Educational Testing Service (1960), 9–13, 16–37.*

Because of the transitional nature of these grades, teachers with an unusual combination of qualifications are needed. Teacher-training institutions have responsibilities in this regard. Grades 7 and 8 certainly should not be viewed as a training ground for senior-high-school teachers.

The following recommendations are based on what I consider to be the best practices in schools I visited:

1. *Required subjects for all pupils in grades 7 and 8.*—The following subjects should be required of all pupils in grade 7 and 8: English (including heavy emphasis on reading skills and composition), social studies (including heavy emphasis on history and geography), mathematics, and science.

In addition, all pupils should receive instruction in art, music,

and physical education. All girls should receive instruction in home economics and all boys, instruction in industrial arts.

The instructional program in grades 7 and 8 is essentially a required program for all pupils; electives generally do not begin until grade 9. English, social studies, mathematics, and science should be given one period a day for five days a week. From my observations, 60 to 70 percent of weekly classroom time might well be devoted to these subjects.

MATH AND LANGUAGES

2. *New developments in mathematics and foreign languages.*—A small fraction of pupils should start algebra (or one of the new brands of mathematics) in grade 8. Some, if not all, pupils should start the study of a modern foreign language on a conversational basis with a bilingual teacher in grade 7.

The reason for the early identification of very able pupils and the start of mathematics beyond arithmetic in grade eight is that at least some of these pupils can complete a four-year sequence by the end of grade 11 and be ready for college-freshman mathematics in grade 12. This saving is valuable for a boy or girl on the long educational road to a professional career.

If the study of a language is started in grade 7, the school board must be ready to finance continuing instruction in grades 8-12 in the same language. The essential goal for those capable of taking the six-year language program should be something approaching mastery of the language.

3. *Basic skills.*—Instruction in the basic skills should be continued as long as pupils can gain from the instruction. This applies particularly to reading and arithmetic.

To my mind, the minimum goal for almost all pupils at the end of grade 9 is that these future voters should be able to read with comprehension the front page of a newspaper at a rate of about 200 words a minute. Pupils who in grades 7, 8, and 9 are reading a year or more below grade-level expectancy should have special provisions made for them. I especially stress reading because pupils will not succeed in high school unless they can read at least at the sixth-grade level.

4. *Extraclass activities.*—Group activities which have particular relevance for early adolescents should be part of the total program. These include musical and dramatic activities, assembly and home-room programs, interest clubs, intramural athletics, and student council.

These experiences are intended to broaden a pupil's program, to develop his interests and talents, to give opportunities for leadership, to contribute to his growth as a member of a social group.

5. *Block-time and departmentalization.*—Provisions should be made to assure a smooth transition for the young adolescent from the ele-

mentary school to the secondary school. There should be a block of time set aside, at least in grade 7, in which one teacher has the same pupils for two or more periods, generally in English and social studies. Otherwise, grades 7, 8, and 9 should be departmentalized; that is to say, pupils should have specialist teachers in each of the subject-matter fields.

6. *Flexibility in schedule.*—The daily class schedule should be sufficently flexible to avoid the necessity for pupils to make choices between, for example, science and foreign languages.

Some educators desire a six-period day with long periods for supervised study. I prefer a seven-period day or the equivalent; otherwise it is difficult to pay attention to the varying needs of children with different abilities. One can schedule in a six-hour day the required program and the activities mentioned previously, but there is difficulty in scheduling remedial work in reading and arithmetic for those who need it and foreign-language instruction for those who can benefit from it.

7. *Challenging all pupils.*—Instruction should be organized to provide intellectual challenge for the whole range of abilities found in a school.

Grouping for instructional purposes is a controversial subject. Interestingly, I have found considerably less objection to it in grades 7, 8, and 9 than I found three years ago in the senior-high school. Perhaps my principal argument for grouping in academic courses rests on the fact that in every school there is a certain fraction of pupils who read well below their grade level. These pupils need special books and teachers. To mix in an English class pupils reading three years below grade level with those reading three years above grade level is to do everyone concerned an injustice.

8. *Guidance and testing.*—A full-time specialist, or the equivalent, in guidance and testing should be available for every 250-300 pupils.

Perhaps a word of caution is necessary. It is by no means easy to find competent guidance personnel. Obviously it is better to delay the expansion of the staff than to employ unsatisfactory people.

In some schools in which many pupils drop out in grades 9 and 10, a form of group instruction in vocational opportunities has much to recommend it. Otherwise, I am not enthusiastic about sequential, regularly scheduled, group guidance.

HOMEWORK

9. *Homework, marking, and promotion.*—Meaningful homework is profitable in grades 7, 8, and 9; drudgery, however, is not meaningful homework. Teachers and principals should develop careful procedures to assure coordination of homework assignments.

High standards should be maintained in academic courses in grades 7, 8, and 9 because of the necessity for mastery of basic skills.

Some pupils take longer to develop these skills than other pupils, and this fact implies that standards of accomplishment, not effort alone, are needed below the senior-high level in required academic courses. This fact also implies that a few pupils might be held back, though certainly for no more than two years in the first eight grades.

I think a progression of homework from one hour a day in grade 7 to two hours a day by grade 9 is not excessive for many pupils. Homework should be preceded in the classroom by a careful explanation of what is to be done. There is a serious problem of coordination of homework assignments to prevent any one teacher from usurping too much time.

In my first report, I recommended that in grades 9-12 pupils should be marked in accordance with their effort in required courses, but that strict standards should be maintained in elective courses. The marking situation in the required courses is different in grades 7 and 8 because of the necessity to master, in particular, reading and arithmetic skills. Therefore, while indications of effort may be appropriate, they are not sufficient criterions to measure the degree of mastery of the basic skills. Unless a child has mastered these early skills, he is likely to have considerable difficulty in dealing with his textbooks in the various subject fields.

A policy of nonpromotion should be applied, however, with care and discrimination. Each case must be viewed separately, for repetition of a grade may be useless and may, in fact, be harmful.

10. *Program in grade nine.*—In the ninth grade, the curriculum should provide for the usual sequential elective program as well as the continuation of the required courses in general education. Many pupils will keep up their interest in art, music, and industrial arts and at the same time commence an elective sequence that will lead to the development of a marketable skill. Others will begin an elective sequence in academic subjects.

FACILITIES

11. *Minimum special facilities.*—Satisfactory instruction requires that the following facilities be available: a well-stocked library, a gymnasium with locker rooms and showers, specially equipped home-economics rooms for girls and industrial-arts rooms for boys, an auditorium or assembly space for at least half the student body, and cafeteria space for at least one-third of the student body. I consider these facilities a bare minimum. Desirable as well are special art, music, and science rooms.

12. *Coordination of subject-matter instruction.*—Whatever the organization of a school system, there should be careful coordination in each one of the subject areas in grades K-12.

Often an excellent social transition is provided for pupils between

one school and another in the same system, but too often there is a failure to coordinate subject-matter instruction between schools and between grades even in the same school. Without question, I consider the lack of what educators call articulation one of the most serious problems in many school systems.

13. *Size of system-wide professional staff and teacher load, grades 7-12.*—A balanced staff of 50 professionals for 1,000 pupils is the minimum acceptable ratio for an adequately staffed school system. A higher ratio of professional staff to pupils is desirable.

The teacher load in grades 7-12 should be approximately the same in most subject areas. The reasonable limits of this load are five teaching periods involving 125-150 pupils per day. Physical-education teachers can carry a load of 200 pupils a day, whereas English teachers should be responsible for no more than 100 pupils. It is possible that a few teachers of advanced academic electives in the senior-high school may also have somewhat smaller pupil loads. A professional librarian should be responsible for no more than 750 pupils.

Duties of teachers which are peripheral to the main task of teaching should be minimized and constantly re-evaluated. No other duty takes precedence over classroom instruction.

14. *Leadership role of the principal.*—The difference between a good school and a poor school is often the difference between a good and a poor principal. A good school invariably means strong leadership by the principal. To exercise leadership, the principal must have sufficient administrative assistance in the form of assistant principals and clerical help. The extent of assistance should vary according to the size and nature of the school. Generally speaking, a full-time assistant principal at the secondary level should be available for every 750 pupils; a clerk or secretary should be available for every 250 pupils.

The question to be answered: Is the principal forced to spend a considerable fraction of his time doing routine tasks that could be done by either an assistant principal or secretary? If he is, he cannot perform his role as instructional leader; help should be provided.

Although I mentioned at the beginning that the place of grades 7, 8, and 9 in the organization of the school system is of less importance than the program provided in these grades, size is important for economical operation. At least 125 pupils are needed in each of grades 7 and 8 if one is to departmentalize satisfactorily with specialist teachers, group satisfactorily, and offer a broad program including industrial arts and home economics as well as pupil activities. With this number in a grade, a separate, three-year junior-high school would enrol 375 pupils, a figure I consider a bare minimum.•

Magic Numbers Are on the Way Out

Open Minds and Flexible Schools

ARTHUR D. MORSE

In Saturday Review

"FIND out and report on the most promising new approaches to education being tried in American public schools."

That, in brief, was the assignment I received recently from James E. Allen, Jr., New York State commissioner of education. Dr. Allen explained that he wanted the public schools of New York State to have the benefit of the experience of other schools systems throughout the country which had blazed new educational trails.

It was with these instructions that I set out on an exciting exploration of education today.

What facts emerged from this study? One conclusion was that American education is showing signs of being lifted out of its rut. Resistance to change, an odd characteristic for a profession that honors the inquiring mind, is melting slowly under the heat generated by new ideas.

Another conclusion is that the process of change needs to be speeded up. The crisis is *now*, and there is dramatic need for action.

To an observer wandering through the nation's schools, the conclusion is inescapable that the process will be speeded only when more parents, teachers, administrators, and school boards recognize the existence of the rut.

Arthur D. Morse is a staff producer for "CBS Reports" and author of the book Schools of Tomorrow—Today *(Doubleday, 1960).* *Reported from* Saturday Review, *XLIII (September 17, 1960), 67–68, 90–92.*

It is exemplified by the dulling uniformity of the typical elementary school. What is needed is flexibility, and flexibility is impossible when all subjects are taught by one teacher to classes of uniform size all day. The organization of youngsters into classroom groups of 30-plus hardens the conventional school's rigidity. There appears to be no evidence that a fixed pupil-teacher ratio is ideal in all learning situations. The number of pupils who can benefit best from a lecture is quite different from the number who can participate effectively in a give-and-take session. The caliber of the students, the quality of the teachers, and the nature of the subject matter would seem to be ideal criterions for class size. They rarely are.

Youngsters are grouped according to the magic number of the moment, say 30 to a teacher. Pupils receive virtually all their instruction from a single teacher—language arts, arithmetic, science, so-

cial studies, music, and art (with occasional visits from itinerant specialists). The classroom teacher is omnipotent in a system which assumes that she is equally capable in each subject area, an assumption made by no other profession.

During the past few years a ripple of innovation has been fanned into a national wave by foundations, imaginative local educators, independent citizens' committees, scattered school boards, a few (very few) state departments of education, individual teachers, and some death-defying principals.

Today a sense of adventure courses through the schools that have adopted the experimental programs. Clichés and stereotypes are losing their firm footholds. Tried and untrue formulas are being discarded "with all deliberate speed," and if the deliberateness usually exceeds the speed, it doesn't halt the inexorable progress.

Magic numbers are on their way out. Experiments in all parts of the country have indicated that the traditional teacher-pupil ratio of 30 to one is in fact too large for discussion purposes and too small for lectures. Consider the far-reaching implications of this one breakthrough. The teacher who is capable of instructing five times the usual number of students frees four other teachers for that period. They can utilize this time in the preparation of their own subject matter, possibly for large-group lectures in areas of their own competence. The four can meet for cooperative planning, a departure from the traditional isolation. The time can be used to harness community resources for a future presentation—to work with libraries, museums, laboratories, or industries that have vivid contributions for the classroom.

The teacher who reaches five times the traditional number of students casts new light on solutions to the teacher shortage and suggests some answers to the salary dilemma. When she enlists the aid of devices like magnetic tape, film slides, and overhead projectors that cast magnified images, she hurdles another educational rut. "If we have a shortage of superior teachers, let's spread individual talents as far as possible," say the experimenters.

Throughout the United States, teachers originally responded to the advent of television as a threat to their security. The picture of an impersonal, robot-like communication between TV screen and child, eliminating the need for the teacher, was transmitted by word of mouth and by educational publications. Gradually it became evident that television could provide scarce talents otherwise not available to school systems—conversational foreign-language teachers for elementary grades; enthusiastic science teachers demonstrating equipment lacking in most schools; experts of national prominence; and, most important, superior teachers with that rare magnetic quality that holds and influences students.

As of last spring, 569 school districts and 111 colleges and universities were utilizing television for instruction. Great refinements have been made since the schools took their first hesitant and expensive steps in this direction.

Obviously the mere use of television does not improve anything. A mediocre teacher on television has the power to spread her mediocrity like a brushfire. There are some schools using television as a "gimmick" and striving for theatrical effects at the expense of learning—but these are rare and cannot be cited fairly in an attempt to downgrade one of the most hopeful developments in education.

Television reflects the end of the magic number approach to education and the adoption of new methods of organizing our schools. So does the concept of team teaching.

TEAM TEACHING

An elementary school may be divided into several teams, each consisting of several teachers and 100 or more students. A team may cross two or three grade levels. The teachers in each team plan flexible-sized classes, basing their size on the nature of the subject matter, the caliber of the students, and the type of presentation. Children may be mixed chronologically. A youngster gifted in mathematics but lagging in language arts can work with an advanced group in the former and a special class in the latter. Youngsters are not penned in the same room with the same teacher all day. Instead, the skills of several teachers, specializing in the subject matter in which they are best qualified, are brought to bear on each child.

Team teaching offers tangible rewards in salary and prestige for the demonstration of leadership and exceptional teaching skill. Each team is headed by a team leader and one or more senior teachers who are paid additional salaries for their increased responsibilities. This organization provides an outlet for the gifted teacher who aspires to leadership in her profession and whose only alternative in the past was an administrative position removed from the classroom.

Lexington, Massachusetts, and Norwalk and Greenwich, Connecticut, are among the communities currently experimenting with team teaching in their elementary schools. Team-teaching techniques are not limited to elementary schools but are also coming into use in high schools.

The Commission on the Experimental Study of the Utilization of the Staff in the Secondary School, directed by J. Lloyd Trump, has broken new ground in an effort to free high schools from their traditional shackles. The commission, appointed by the National Association of Secondary School Principals, and backed by the Ford Foundation and the Fund for the Advancement of Education, has supported experimental programs in about 100 secondary schools.

Dr. Trump writes in the com-

mission's publication, *Images of the Future*:

The secondary school of the future will not have standard classes of 25 to 35 students meeting five days a week on inflexible schedules. Both the size of the groups and the length of the classes will vary from day to day. Methods of teaching, student groupings, and teacher and pupil activities will adjust to the purposes and content of instruction.

It is significant that the National Association of Secondary School Principals, under whose aegis Dr. Trump has worked, is a department of the National Education Association. This most powerful of the nation's education groups has a tradition of conservatism in the acceptance of new ideas, but once it supports innovation it can end the tragic 20 to 25 year lag between the origination of an idea and its acceptance.

The NEA's Project on the Academically Talented Student, directed by Dr. Charles E. Bish and supported by the Carnegie Corporation of New York, is another example of its pioneering activities. Dr. Bish has developed a clearing house whose files include thousands of programs for the talented and a consulting service whose impact has been felt all over the United States. In June, his project released a report based on a conference held by the NEA and the Modern Language Association. The report recommended that the study of foreign languages begin in the elementary school, preferably not later than the third grade, and continue in "an uninterrupted sequence for 10 years."

Coming on the heels of successful experimentation in the teaching of languages in elementary school, this report should help to administer the *coup de grace* to superintendents and principals whose apathy has slowed this obviously desirable development.

The wave of experimentation throughout the nation is impressive, but it is, in fact, a drop in the bucket. There are about 45,000 school districts in the United States; only a relative handful are examining new ideas. Ingenuity, imagination, and tolerance are perhaps more essential to our school crisis than is money. Too few school superintendents, school-board members, and government officials have kept pace with progress. The New York State Education Department's willingness to consider unorthodox programs, as attested by its commissioning of "Schools of Tomorrow—Today," is a unique exception.

Philip H. Coombs, program director of the Ford Foundation's Education Division, has pointed out that "what the advancement of education requires, just as much as more money, is a larger and more dynamic frontier of experimentation and new developments, and a pervasive professional mood which not only tolerates innovation, but which welcomes and encourages it. Herein lies today, I believe, education's greatest shortage."

This is one shortage we cannot afford. •

Programming Is Important

Teaching Machines and Special Education

LAWRENCE M. STOLUROW

In Educational and Psychological Measurement

AS early as 1926, Professor S. L. Pressey of Ohio State University discovered the possibilities of automation in education. The applied psychology of learning, in the form of machines that both taught and tested, harbored for him an "industrial revolution in education." Unfortunately, Pressey was 30 years ahead of his time.

Educational automation was recently rediscovered by B. F. Skinner of Harvard University. His ideas have been significant and have contributed to the management of the learning process, particularly through the manipulation of reinforcement. Skinner has pioneered the programming of materials for teaching machines and has generated much of the current interest. Some feel he has started a new movement which could have rather profound effects on the teaching profession, school design, and our whole concept of education.

One of the most potent characteristics of a teaching machine is that it permits the experimental psychologist to impose on human learners in the classroom the kind of control that formerly was achieved only in the psychology laboratory. While they are learning any of a wide assortment of meaningful materials, strict controls can be imposed. Consequently, in the foreseeable future, the much needed *rapprochement* between experimental psychology and education seems highly probable.

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For psychological purposes, eight properties appear to be important, if not critical, characteristics of teaching machines. They are:

1. Presents information either as statements and then questions, or as paired sets of abstract symbols to be associated, and accompanying incomplete associations for testing purposes. This is the *presentation* function.

2. Requires a response that is overt and measurable. Form of the response and the measure taken may vary from machine to machine and/or the training purpose involved. This is the *response* function.

3. Compares, or permits the learner to compare, the response with a predetermined correct response. This is the *comparator* function.

4. Provides knowledge of re-

sults and has the potential for doing this after every response. This is the *feedback* function.

5. Programs information according to a set of rules that are capable of being made explicit if only at the level of being pointable. This is the *programming* function.

6. Allows for variability in the information presentation rate. This is the *pacing* function.

7. Combines learning and its measurement into a single set of coordinated operations. This is the *collator* function.

8. Automatically rejects the correctly-responded-to items so that the learner sees a smaller number of items from trial to trial. This is the *selective* function.

BASIC TYPES

There are three basic types of teaching machines. These are: (*a*) the nonadaptive, (*b*) the partially adaptive, and (*c*) the adaptive. Adaptivity, which is probably the most critical feature of a teaching machine, is the capacity of the machine to adjust in one or more ways to the specific needs of the individual learner. There are several dimensions along which machines can be adaptive, and some machines are built so as to provide adaptation in one or more dimensions.

The nonadaptive machine category includes pseudo-teaching machines. Scrutiny reveals that they do not embody the requirements of a teaching machine. One example is the flash card. It performs in the same way for every learner, and programs in the same way, whether or not the learner made a right or wrong response.

The partially adaptive machine also runs all learners over the same sequence of events. However, some of the partially adaptive machines prevent the learner from moving on to the next item until he has responded correctly. They have the advantages of recording the learner's responses for later analysis and, depending on their use, permitting the learner to pace himself. Another distinguishing factor of these machines is the automatic rejection on subsequent presentations of items which the individual responded to correctly.

The adaptive machine has the ability to branch, or alter, the teaching program, depending on the various revealing characteristics of the learner's responses. Whenever the subject makes an error, the machine does something different, and each type of error produces different results. It interprets each error. One interpretation is to assume that the learner failed to obtain information that was available. In this case, for example, he may be told to reread the question. Another interpretation would be that the subject has failed to learn some information presented earlier. In this case he may be told why he was wrong. This information is presumed to fill in, at least to some extent, the diagnosed gap in information.

There have been numerous

studies of possible uses of teaching machines with special education. These studies, among other things, are forcing a reexamination of what was assumed to be a positive relationship between mental age and rate of learning. There are studies showing that with efficient programming of learning materials the correlation between a measure of intellectual ability, or of aptitude, and learning scores tends to be reduced to zero. Thus, it would appear that, with efficient methods of learning, the poorer student is assisted sufficiently so that he becomes, in terms of criterion performance, indistinguishable from the more able students. While the data on this point is meager, it is an interesting and provocative finding.

INABILITY TO LEARN

Woodrow argues that mental defiency is an inability to *grow* rather than inability to learn from practice. He feels that ability tests such as the IQ predict the initial level of performance but not the gain scores. Additional research in this area could have important implications for the education of the mentally retarded. If Woodrow's position were to be supported, then it would suggest two things of particular interest to special education.

First, if the learner had the minimum level of ability required by the task, then the rate at which he learned it would be a function of factors other than his ability. This would mean that minimum mental-age levels should be identified for school tasks.

Second, it suggests that learning research should be directed toward variables which determine rate of learning rather than at comparative studies of normal and retarded children. Research in special education would be concerned with the way information and skills should be taught rather than with what should be taught.

Related to this possibility that efficient programs will lead to reduced individual differences in learning efficiency are the following: The adaptive teaching machine would adjust to individual needs and more or less guarantee mastery; the teaching machine is potentially as sensitive as the most sensitive teacher to the error of students; the teaching machine is definitely more patient than the most patient teacher, and the machine does not tire; and the machine may have "toy-appeal" and thus produce increased motivation.

Another problem of interest in special education is the pacing of materials—time per new association. Some studies have compared rates of learning as related to the different sized "steps" in the program. Barring the fact that no one has an objective measure of step size, the general observations of the writers of teaching-machine programs have tended to support the research finding that small steps are better for everyone, both bright and dull students. Several

researchers find that all learners make fewer errors with programs that have smaller, and therefore more, steps. The data here again suggests that the problem of the slow learner is retention rather than learning, supporting Woodrow's position. An interesting implication of these results is that it may not be necessary to develop separate programs for the bright and dull students in terms of size of step.

TWO HYPOTHESES

Presently, we see two hypotheses emerging: (*a*) that the teaching program, in terms of steps that are most effective for learning, may be the same for both the bright and dull learner; (*b*) that the critical difference in teaching bright and dull children may be in the management of the responses. For the retarded learner it may be necessary to have him practice overt responses, whereas this may not be necessary for the bright student. For example, in language arts it may be necessary to provide for the spelling of words by the retarded and for their pronunciation of words aloud so as to counteract for loss in retention, whereas for the bright learner this may not be necessary.

This conclusion about the possible source of difference between bright and dull learners should not be interpreted to mean that research on programming of learning materials is unimportant. The contrary is, in fact, the case. We know so little about the factors in programming that they have to be studied regardless. We need to have an efficient program as a base from which to work on these other variables.

Current interest in automation in education may or may not pass, leaving little in its wake. It may, perhaps, leave us with much that is substantial. My impression is that the automation of many teaching situations could have profound and lasting implications for special and general education. The *rapprochement* between experimental psychology and classroom instruction itself would be a significant contribution, and the teaching machine could bring this about since teaching machines can provide the kinds of experimental controls that are needed to examine variables in learning. In addition, teaching machines permit the use of a learning theory concept for analyzing the complex learning situations of the classroom.

Some of the emerging findings in this movement seem to have useful and interesting implications for research on basic problems in special education. This movement can provide not only a new orientation to research on the learning problems in special education, but it also could shed new light on several old problems which have important implications for teaching. There is some evidence that this is taking place and will continue to develop at an even more rapid pace. •

Not "Toughen Up" but "Tone Up"

Education as a Mode of Association

FREDERICK M. RAUBINGER

In NJEA Review

WOODROW WILSON once reminded us that a school or college is not only a home for learning but also—and equally important—a mode of association.

Wilson provided a definition from which we can derive a sense of direction—a definition appropriate not alone for the Princeton of which he was president, but for the high school of which you may be principal, or the elementary school in which you may teach.

What can we say about a school in which the most productive mode of association exists? What kind of school is it? It is a place where an atmosphere of friendship, cooperation, and understanding pervades all activity. It is a place where teachers gain satisfaction from working and planning together, where individuals are important and where cheerfulness and encouragement give stimulus to children. It is a place where the attitudes of teachers and pupils demonstrate that it is more important to cultivate than to cull.

It is a place where parents are welcomed, not primarily because they are voters and taxpayers, but because teachers realize that they can learn as much from talking with parents as parents can learn from the teachers. And it is a place where teachers recognize the psychological truth that everyone needs a sense of status, a feeling of belonging, of being a part of what is going on; that deep in everyone is a desire to be considered a person of worth.

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One compelling reason why a school should nourish a mode of association which offers some measure of stability to young boys and girls is that the world today is not a very stable place. Each teacher should seriously question the idea that a child brings only his mind to school and leaves everything else outside—his senses, his fears, his hopes, his emotions. That is an absurdity in view of our realization that everyone is a complex of feeling and reason, doubt and hope, inadequacies and talents.

The essence of the school and the mode of association that it should foster is the relationship of the teacher to the pupil. No mechanical aids, no books or films, no courses of study, helpful as these may be, can substitute for the thoughtfulness, the understanding, the skill, the wisdom of the superior

teacher in daily association with those he teaches.

Too often we forget the importance of the kind of association that prevails in a school. We sometimes become too involved in synchronizing the bell schedules, manipulating the intercom system, operating the detention hall, working out the visible card index, revising the marking system, devising the foolproof system of room passes. It is no wonder that Burton Fowler warned that social and moral values in education are being threatened by mechanics. The school today finds itself called on to counter the dehumanizing influences which abound in contemporary culture.

"TONE THINGS UP"

Evidence that we have sometimes forgotten the essential nature of learning and teaching can be found in the recent agitation to "toughen things up," to "speed things up," in our schools. It remained for a poet to set us straight. Speaking on television last year, Robert Frost said he didn't think we need to toughen up or speed up. Probably what we need, he said, is to "tone things up" a little. This statement has a human ring to it, and seems a more fitting call to action for school people.

Much of the present confusion in educational thought has resulted from the fast pace of change in the world. Much of our difficulty, in education as in other phases of human endeavor, results from the tendency to resist change or to ignore it, to meet the present by retrogressing to the ineffective solutions of the past.

Certainly there is not a school anywhere which has used to the maximum all that has been discovered about the nature of the learning process, or that has tapped more than a fraction of the latent power of education, or that has yet caught a complete vision of what good teaching can do to enrich the lives of children and young people.

But we need to keep in mind as we survey the swiftness with which change takes place that in the midst of the most dramatic changes, many values endure. Human beings today are psychologically, and biologically, much the same as they were a hundred or a thousand years ago. They have the same basic needs as human beings that they had in the past.

The miracles of modern technology, it seems to me, can only be measured by the degree to which they advance the welfare of mankind.

We cannot look to technology alone for the kinds of change which the world most needs. Changed behavior, which is the only kind of change that offers hope for the future, has the best chance of coming about through the work of the teacher. The job of education today, as in the past, is to change behavior.

Wilson, in contrast to some of the spokesmen of mid-century re-

actionism, was talking about education in its broad, humane framework. Many who are entering the controversy about our schools today, it seems to me, are talking about training. It is important that every teacher understand the distinction between the two.

Those who extol the virtues of Russian schooling fail to understand that the patron psychologist of Russia is Pavlov—Pavlov of the conditioned reflex and associational learning, a psychology eminently fitted, as it is generally interpreted, to control and condition and train a people in the ways the rulers wish them to be trained. Such training is a fearsome thing, effective in a mechanistic society not really concerned with human values. Training, however effective in the short run for Soviet purposes, is the antithesis of unfettered inquiry, of humanism and humaneness, of Judaic-Christian ideals, of our Western culture, of respect for personality, and of love for freedom.

Sometimes education as here invisioned encompasses some aspect of training, but by no means does it always do so. Education is more than training, and it transcends training.

Education does not always lend itself to results that can be immediately observed and recorded, because it bears its fruits in slow change in people: change in outlook and perspective; change in selfawareness, understanding, and point of view; change in sympathies, relationships, values, appreciations, judgments.

The results of education cannot be measured and gaged with precision, since they will become apparent during the course of an entire lifetime.

Education cannot be made uniform, nor can its process be prescribed minutely in advance. It is never exactly the same for every learner. Education—teaching at its best—is a creative and a recreative experience for both teacher and learner.

Too many spokesmen of today take a pessimistic view of attempts to provide the kind of teaching we need. We can't possibly find enough good teachers, they say. We can't possibly afford the cost. So let's find some shortcuts and settle for something less than the best. Put the master teacher before the television camera. Assign the few good teachers to the few good pupils. Bring in the housewives to grade the papers.

Admittedly the task of providing good teaching is difficult, but I for one am not willing to agree that it is impossible. I am not willing to settle for something less. •

WHOEVER acquires knowledge but does not practice it, is like one who ploughs a field but does not sow it.—From *Texas Outlook.*

A Crash Program
Can Be a Rash Program

Watch Out for the Pendulum Swing

RALPH H. OJEMANN

In National Parent-Teacher

WHEN we are confronted with a problem on a national scale, we usually want to do something about it forthwith. We attack it with vigor and enthusiasm, sometimes with so much of both that we tend to go to extremes. Often we begin to think and talk about "crash" programs to cope with it.

There is much to be said for this attitude, which has become almost an American tradition. However, crash programs sometimes make it difficult to keep things in perspective or to see the problem as a whole, whether it is one of national security, national health, or upgrading education.

For example, in the late 1920's, when vitamins and their importance in human nutrition were just becoming known to the general public, there was a drive to get people, especially growing children, to eat the proper foods. We heard constantly about the importance of vitamin-rich vegetables, and parents worried about getting their children to eat these foods. The result: a rash of feeding problems.

What was the trouble? Research had established the fact that every child needs foods that supply vitamins essential for growth. Only one thing was wrong: Many children wouldn't eat the beans, carrots, or spinach. Some parents tried stern discipline to force children to eat proper foods. Others tried letting the children alone in the hope that they would eventually get around to eating the vitamin-rich foods on their own. Neither method worked.

It was all a matter of overemphasis. Parents, teachers, and society in general were paying too much attention to vitamins and too little to helping children handle the new foods. In their concern for getting vitamins into children, parents overlooked the fact that a child is not born with the ability to handle all the foods offered to him.

Take another illustration. Today we are facing certain international problems that some people are suggesting we meet with a "crash" educational program. It is said that we are lagging in the missile and satellite race. Very well. Let's force our children to study more mathematics and science and to study them harder, so in the long run we

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can catch up with the Russians, impress the less developed nations, and win them to our side.

There is nothing wrong with stressing the study of science and mathematics or with finding students who are gifted in these fields and encouraging them to develop their special abilities. But if we put all the emphasis on this one part of the international problem, will we get "in orbit"? Let us see.

ANALYZE THE PROBLEM

When we analyze the problem, we find that our lack of scientists is not the only element present. Perhaps Americans have not realized fully what satellites mean to large groups of people in other countries. Is the problem, then, only one of producing more scientists? Or does another part of it involve increasing our knowledge of other peoples—their hopes and fears, how they think, what we mean to them, and how much or how little they know about us?

The international problem won't be solved by cramming science down the throats of school children any more than the problem of vitamins was solved by stuffing them with spinach.

Presently we are hearing demands for a crash program to curb juvenile delinquency. This problem, however, like the shortage of scientists and the feeding of vitamins, is a complex affair. The causes are many. Prevention is not just a matter of cleaning up slums, employing more policemen, or setting up more youth camps. Neither is it a matter of being soft or hard in discipline. The problem is first and foremost one of having more parents who understand children.

Probably most of us think we *do* understand children. But do we? If we do, why are some of us strict one day and lenient the next? There is good evidence to show that such inconsistency in discipline is very disturbing to a child. It tends to make him insecure and confused. He doesn't know where he stands or what is expected of him.

There are, it seems, two principal reasons for our inconsistency. First, we become so concerned about our own problems that it's hard for us to put ourselves in a child's place and realize how he feels. Second, we do not understand or appreciate what the child's behavior really means.

Suppose we do manage to feel somewhat as the child feels, extend our understanding of his behavior. What kind of discipline would such insight and understanding lead to? To the "soft" kind? Or to "hard" discipline? The answer is, the pendulum shouldn't swing to either extreme. The wisest procedure would take a form something like this:

Young Tom constantly fights with his little brother and sister. We say to ourselves, "Something must be bothering Tom. A child who fights a lot is often troubled with feelings of anxiety. What may be producing the dismaying feelings? Does Tom have the right play

materials? Are we dictating to him too much?" After considering these and other questions, we ask ourselves, "How can we help Tom to find a more constructive method of bolstering his security and self-respect?"

Then we say to Tom, "I think I know how you feel and what you want. But you know as well as I do that this isn't a good way of solving your problem. Let's try a different way."

In like manner, a child who doesn't want to study usually has something bothering him. The same is true of children who don't want to go to school. During World War II, a group of parents sought advice concerning their sons who did not want to go to high school. The county superintendent solved the problem. Living in a rural area, the boys could drive tractors and perform many farm operations almost as well as their fathers. Hearing over and over again that food would win the war, the boys felt sincerely that it was much more important for them to raise food for the nation than continue school.

The superintendent rounded up several farmers who had not gone to high school. Now in their early thirties, they were old enough to experience the effects of their decisions but young enough to appreciate how the boys felt. By talking with the boys, the farmers, who all wished that they had continued their schooling, were able to put the problem in a new light for the youngsters. These boys had been thinking only of the immediate future, but now they could see the long-run effects of their decision.

Whether the issue involves health, education, juvenile delinquency, or discipline in the home, the peril of pendulum swing is always present. It arises when we overlook the several different parts of a problem and put all the emphasis on a single phase.

What would we think of a surgeon who, when operating on a patient, concentrated only on the diseased organ and failed to consider how much strain the patient's heart could stand? Or consider a farmer who ignored the soil needs of his crop and placed all emphasis on insecticides. We expect the surgeon to know the nature of his patient, the farmer to know the nature of his crops. We expect both to make decisions in the light of this knowledge.

Our big job, as we discipline our children for living in a free society, is to help them learn how to make such decisions. Not by dictatorial methods, not by permissiveness, but by planning with them, leading them to see all sides of a problem, can we train them in the art of deciding wisely. The pendulum need not swing. It can point steadfastly to the path of understanding so that we may firmly guide the child to acquire what he needs to make his own choices. This is the foundation of freedom. For it has been said, "That person is free who recognizes himself as the author of the laws he obeys." •

Dual Control or Unit Control

Responsibilities of the School Business Administrator

FREDERICK W. HILL

In The School Business Administrator

SCHOOL business administration has existed since the beginning of the public-school system, although originally it may not have been considered as important as it is today.

Historically, it appears that the necessity for the appointment of a full-time school business administrator was first recognized more than a century ago—in 1841—when the city council in Cleveland, Ohio, passed an ordinance providing for the appointment of an "acting manager" of schools. It is interesting to note that Cleveland did not appoint a superintendent of schools until 12 years later.

During the late nineteenth and early twentieth centuries, many school trustees and school superintendents recognized the importance of good business administration. They felt that the way to accomplish this was to employ a well-prepared business administrator to whom important business-management responsibilities could be assigned. Some school trustees employed a professionally trained educator to be superintendent and a businessman was appointed to be the business administrator. Both individuals had equal status in the administrative hierarchy; each was directly responsible to the board of education for his own area. This concept of management, commonly referred to today as "dual control," received favorable reception in several areas.

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In most other areas, school trustees have adopted the "unit control" plan, which places all administrative responsibility with the superintendent of schools. The trustees in those areas have delegated to the superintendent complete responsibility for the administration of the school district.

We now recognize that decisions relating to curriculum, school organization, and personnel all affect and are affected by decisions on finance. By accepting the relationship between budget planning and educational activities, and classifying all as administrative responsi-

bilities, the school trustees have enhanced the professionalization of all school administrators, including the school business official, all of whom have achieved a status highly respected by the public and the teaching profession.

The concept of the position, responsibilities, and qualifications of the school business administrator has been evolving over many years and still is in the process of development. Therefore, the job responsibilities in any given community must be described in terms of the local historic patterns, the local staff available, and the unique competencies of the particular individuals involved. No two school business administrators have identical tasks. However, wide experience suggests a broad range of duties usually associated with or assigned to him.

The business administrator is a member of the top team in school management. The best school business officials are those who understand the prime goals of education. School business administration is not an end in itself, but is a service contributing to effective education. The good school business administrator will seek to insure that every activity of his staff will have vital meaning in such areas as: improving educational opportunity; providing and maintaining funds, facilities, and services; obtaining and developing noninstructional personnel; and maintaining effective interrelationships with the community.

In *any* endeavor, the basic functions of management are planning, organizing, controlling, programming, coordinating, directing, staffing, and evaluating. Inherent in each function is a high-level evaluation and appraisal process. The test, of course, is always results.

An effective school business administrator must be a good manager. And within the area of school business administration, these seven functions of management are largely his responsibility. In large school districts under the unit control plan, he would be one of a number of assistant superintendents who would go to make up the superintendent's cabinet—the advisory body to the superintendent. He might also act for the superintendent at his direction in the same manner as any of the other assistant superintendents might act. This places the position in the category of major responsibility because it represents one member of the team that helps to determine school-district policy.

To develop this situation, the responsibilities of the school business administrator must be well defined and he must be given the authority to act. This latter is very important because he must not be inhibited in the carrying out of his responsibilities within the over-all policy of the district. This is the kind of environment that provides relief for the educational administrator, who thus need not worry about the functions of school business management and who can

rely on this official to provide him with information that will make him more effective before the public.

In the past century, many specific tasks associated with school business administration have been catalogued and described. However, because of the "uniqueness" of every local situation, it is useful only to suggest certain major areas or functions for which school business administrators are typically given responsibility.

The following are examples of the functions carried out by the school business administrator, in cooperation with all members of the staff having related administrative responsibilities:

He assists in coordinating the views of administrators, teachers, and citizens in translating the educational needs and aspirations of the community into a composite financial plan.

He is responsible for all purchases, including equipment and supplies for new buildings as well as for existing buildings. He considers the educational implications associated with each purchasing decision.

He works with administrators, teachers, and lay personnel in determining and planning for school-plant needs, and in acquiring school sites and managing school property after the educational standards are determined.

He helps interpret the educational program to the public by preparing materials for distribution, addressing and working with service clubs, the PTA and citizens' committees, etc.

He helps to secure personnel for all positions in the area of school-business management. He handles individual and group problems related to working conditions, benefits, policy, and procedure.

He organizes and directs a program of in-service training aimed at increasing the skills of school-management personnel and at developing proper attitudes toward the educational objectives of the school district.

He has the responsibility for providing, operating, and maintaining facilities which will assure maximum educational utility as well as a healthful, comfortable, safe environment for pupils, teachers, and the public.

He supervises the operation and maintenance of the school bus fleet to insure safe, economical, and comfortable transportation for children.

He establishes and supervises the accounting system necessary to provide school officials with accurate financial facts as the basis for formulating policies and decisions.

He supervises clerical personnel in the business office, and, on occasion, in other school offices.

He has general responsibility for operation of school food services by providing economical and satisfactory facilities and efficient management of the school-lunch program. •

How to "Sell" New Ideas

Educators: Still the No. 1 Target

HERBERT HITE
In Audiovisual Instruction

A BEWILDERING array of new devices has suddenly come to the attention of the teacher and administrator—educational television, teaching machines, language laboratories, teaching teams, flexible class schedules, and other techniques with which readers of this magazine are familiar. So many ideas, coming so fast, are an entirely new trend in our educational history.

Two factors beyond the control of educators have much to do with this accelerated rate of change. One is the population explosion. In the next 20 years, America's total population will increase by two-fifths, but the age group from which teachers can be recruited will increase by only one-fifth. No matter how much teachers gain in salaries, or how much they gain in status, not enough teachers will be available to staff our schools at present ratios of one teacher to 25 or 30 students.

A second stimulus to innovation has been the explosion of knowledge. Many students now in high school soon will be performing complex jobs which have not yet been invented. To prepare for such positions, students need to have more basic knowledge about more fields than did past generations. Mathematics, science, foreign languages, and the social-science curriculums are being reorganized with this fact in mind.

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We already know from initial research and experience that the new patterns of instruction can do a better job for more students with more efficient use of available staff. Effective application of these new media and methods will bring about an instructional revolution. Essential changes will be made, however, only if such innovations are accepted quickly by the teaching profession. Teachers and administrators are notoriously conservative in this respect. If we in education adopt the newer media at our usual leisurely rate of progress, we will have failed to provide an education which will equip students to cope with the world in which they will work and live.

It appears, therefore, that it is just as important to encourage teachers to accept worthwhile educational innovations as it was to develop the innovations in the first place.

What does research show us in

regard to how people are persuaded to accept new ideas or devices? Actually, research does not provide us with a formula. We can adapt, however, some techniques which work for the purveyors of tooth paste, good will toward industry, and the profit motive. To illustrate, let us assume that we want to persuade teachers to try teaching machines. Here are six principles which have been developed to gain public acceptance for a new idea and which might be applied to our problem:

APPLYING SIX PRINCIPLES

Communications specialists know that it is far easier to create a favorable attitude toward an idea or product with an effective first impression than to change a negative attitude already formed. Teaching machines are still relatively new, thus chances are that most teachers will have no strong attitudes toward them, positive or negative. It is very important, therefore, that the first systematic message about teaching machines be carefully worded and illustrated. Coining the phrase "teaching machine" was probably unfortunate. Our campaign to gain acceptance might well be aided if the term were changed to "selfteaching devices."

We will want to demonstrate these machines in a way which is simple to understand and for a purpose nearly all teachers will accept. For example, we might demonstrate to a group of elementary teachers a machine designed to teach spelling. First, we would assure them that our machine is no Frankenstein. It is a device which leads students through material in easy steps. The machine immediately reinforces, or rewards, the correct answer or corrects the wrong one. Thus, students learn to spell faster and better than they otherwise would.

We would stress the fact that the machine frees the teacher from her role as drillmaster so that she can perform more highly professional duties. We would hope that this first impression would be understandable and flattering to teachers.

The second principle is that people are more inclined to accept new ideas from persons whom they respect. Teachers will be likely to try out the devices if we arrange for the superintendent or principal to make the explanation. Public-relations experts have identified something called a "power structure" in communities which determines attitudes of many community members. Thus, in order to persuade teachers, it will be necessary to discover who among the staff are opinion-makers and persuade these few to take the initiative.

If the wrong person advocates innovations, an information campaign actually may result in less acceptance than if no information had been provided.

The third principle is that people tend to accept what they believe "they figured out for themselves." A classic study in human

relationships was conducted during World War II to discover how housewives could be induced to purchase the less attractive cuts of meat. It was found that allowing housewives to work out their own solutions in small discussion groups changed buying practices faster than "telling them." By the same token, teachers will probably be more willing to experiment with teaching machines if they are permitted to work out applications on their own and in discussions with other teachers.

OFFERS REWARD

The fourth principle is that an individual is likely to accept a new idea if such an acceptance offers an immediate and personal reward. Teachers need not be guaranteed a material reward or prize for making a good effort, but, like everyone else, they respond favorably to praise. They will accept a message which reinforces their good impression of themselves. The teacher who sees himself as a "frontier thinker," or whose principal is intrigued by new ideas, probably will want to be among the first to try teaching machines. The one who sees a threat to his job, or whose principal looks on experimenters as radicals, will be resistant.

The fifth principle is that people generally are less apt to accept a new device if a number of technical problems must be mastered before the device can be put to use. Teachers will accept or reject the use of teaching machines partly on the basis of their past experience with other teaching gadgets—the 16mm motion-picture projector, for example. If using the equipment and securing a film proved to be a frustrating and complicated process, the teacher will not be inclined to submit himself to what he anticipates will be new frustrations. Where the use of new devices has been handled through simple and effective procedures, we would expect teachers to have more receptive attitudes.

Finally, public-relations researchers have discovered (with something of a shock) that most people resent being manipulated by "selling" techniques. Resentment of obvious public-relations techniques seems to be particularly strong among well-educated people. The "hard sell" approach probably will fail as a way of gaining acceptance for teaching machines. We will do better if we point out the limitations of these devices as well as their advantages. We would encourage teachers and administrators to choose to try these devices, rather than attempt to force innovations on them.

The coming instructional revolution will be both difficult and painful. Teachers cannot be expected to revise voluntarily methods they have spent a lifetime developing. But in light of the needs of today's students, this job of persuading teachers to utilize the new media is important. It may well be the most important single job of audio-visual specialists. •

What the Administrators Think

Should Schools Teach "About" Religion?

In The Nation's Schools

PUBLIC high schools should find a place in the curriculum to teach *about* religions. Except for this addition, schools are doing all they reasonably can be expected to do in the teaching of moral and spiritual values.

These views were expressed by the majority of administrators responding to September's opinion poll conducted by *The Nation's Schools.*

Fifty-two percent favor instruction *about* religions in the high-school curriculums. Taking the long view, a Michigan schoolman commented: "I believe knowledge of the various religions—their basic beliefs and objectives—can be of significant value in helping to further national and world understanding."

A superintendent from Missouri favors teaching about religions in the high school "if the material is carefully planned and taught by persons who could maintain an unbiased, objective point of view."

"Each high-school student should be taught about religions," stated a Texas administrator. Then adding this prayer, said: "God help the teacher, however, who runs afoul of the bigots and crackpots in the community!"

Perhaps the 45 percent who are against teaching about religions

Reported from The Nation's Schools, *LXVI (September 1960), 74*

thought of this; at any rate, most of them anticipated trouble.

An Ohio official predicted that "the word 'about' would soon be lost and there could be trouble."

Some prefer that "comparative religions" be taught at the junior-college level, where the subject might be chosen as an elective. Others contend that history courses offer enough teaching in this area for high-school students.

Whether moral and spiritual values are taught or "caught," as one administrator suggests, public schools are doing as much as can *reasonably* be expected in this area, believe 61 percent of the respondents.

Said a Washington superintendent: "With pupils' school environment restricted to a maximum of about 1080 hours during the school year, the best the school can do is *supplement* the teaching of moral and spiritual values, not assume the major responsibility."

Already, schools are teaching good sportsmanship through supervised playground activities; various classes are presenting the ideals of citizenship, mentioned a

Nebraskan. Teachers act as examples and indirectly teach values to students, said an administrator from Minnesota. Schoolmen from Maine and South Dakota reported that their schools are participating in a program of released time for religious instruction in local churches.

Going a step farther, a Wisconsinite offered, "Knowledge of what is right does not necessarily lead to right conduct. The problem is how to bolster knowledge with a desire to *do* what is right. This calls for more practice and example."

Some respondents contend that the schools are doing their share in teaching moral and spiritual values, but other agencies are not. Said an Iowa official: "Perhaps it is a worn-out statement, but I still believe that the home should do most of this teaching."

One group of superintendents invoked the doctrine of separation of church and state. "I think all of us teach moral and spiritual values, but I can't see that the school should infringe on or take over the work that rightfully belongs to the churches," stated a Kansan.

"Probably the schools are doing all that is reasonable to expect, considering the crowded curriculum, the wide variety of standards concerning spiritual values, and the time-consuming duties of a non-instructional nature that are required of teachers," commented a Texan. "Nevertheless, results are not being obtained."

Thirty-eight percent of the respondents would probably use the Texas superintendent's last statement as a reason for saying that schools should do *more* in teaching moral and spiritual values. A second administrator from the Lone Star State declared: "Tomorrow's citizens must be stronger spiritually to withstand the tempestuous onslaught of isms."

A Minnesota schoolman would accomplish this through "teaching by example only and entirely without words"; a New Yorker by "discussing questions of moral significance with individual pupils as pertinent situations arise"; a Wyoming official by "emphasizing fair play and honesty in all classes."

Before schools attempt to assume more responsibility, there are changes that must be brought about, caution some respondents. "Until we reach some reasonable standards on moral and spiritual values, the public schools are on shaky ground even if the teachers teach unofficially," maintained a Massachusetts schoolman. •

IN keeping the public school free from religious teaching, we are conferring a benefit not only on the community but on the vitality of religion . . . Neither by training nor instruction is the public-school system capable of teaching religion effectively.—*Robert Gordis*, Columbia University.

Children Want to Know

KENNETH D. WANN

In Childhood Education

WHILE we recognize the impact of our technological age on children's learning, there is a need for a more precise understanding of what children are learning from their experiences and the ways by which they organize and use the great array of unorganized ideas with which they are bombarded.

To satisfy our own need in this respect, the author and a small group of teachers undertook a study of the concept development of young children. The teachers represented schools in communities of widely differing socio-economic levels. The study was of three-, four-, and five-year-old children in their own classrooms over a period of five years.

We were not prepared for what we found. Casual observation had convinced us that the children knew and understood a surprisingly lot about many things, but the extent and depth of their information and understanding were sources of amazement to many of us. A topical analysis of the data collected revealed concern with information about hundreds of topics ranging from dinosaurs to rockets and from people and places to weather and electricity. It was clear that the interests of children were global, even universal, in scope. Their interests were not confined to any one period of time or to any one locality.

The range of information is illustrated by these anecdotes drawn from hundreds of similar ones collected by the teachers.

During morning snack time, four-year-old Maggie was breaking her crackers into tiny bits. The teacher said, "Maggie, what on earth are you doing?"

"I'm making an infinity of crackers," Maggie responded.

The teacher, somewhat surprised and not at all sure that Maggie knew what she was saying, asked, "What is an infinity, Maggie?"

"Oh, you know, it just goes on, and on, and on," Maggie answered.

Beth and Jimmy, five years old, were looking at a book about the sky. Beth said, "Water comes from the clouds."

"Yeah, but you know air ends up in the sky at the beginning of space," Jimmy responded. "There's no water or air up there, and you can't live there. They're trying to get through but they can't."

Kenneth D. Wann is Professor of Education, Teachers College, Columbia University, New York. *Reported from* Childhood Education, *XXXVII (September 1960), 8–12.*

It was apparent early in our study that these children were on a continuous quest for more and more information. We have evidence to indicate that concept development was a conscious process to these children. It was evident that the children repeatedly sought more information about a given topic and that they consciously tried to relate and test one bit of information against another.

DEVELOPING CONCEPTS

We were deeply impressed with the struggles of young children to understand, to interpret, and to put together into a comprehensible pattern the pieces of the complex puzzle that is their world. This is not easy, and children were found developing misconceptions as often as they were developing accurate concepts. Excerpts from children's conversations will illustrate this struggle.

A four-year-old saw a great machine excavating for a huge building and asked, "What kind of machine made the world?"

Another four-year-old found a picture of the Spirit of St. Louis. It did not look right when compared to the present-day models he knew and he asked, "What's wrong with this airplane?"

Other children were confused when they found two large cans of ashes waiting for the trash collector. These city children had never seen a fire make ashes.

"What's in the can?"

"Ashes."

"Where do they come from?"

"Cigarettes, you dope."

Even the simplest words sometimes can be confusing. One child asked, "Is stupid a bad word?" Replied his friend, "No, it means crazy, but I don't know if it's bad."

In their efforts to put together related information and ideas into a conceptual framework that had meaning for them, the children employed all the processes involved in thinking and reasoning. There is ample evidence that these children were associating ideas, attempting to discover cause and effect relationships, and discriminating and generalizing about those things which they see, hear, and feel in their environment. These are the essential elements of the process of conceptualization at any level.

There were numerous cases recorded in which children were generalizing. In many instances the generalizations were accurate and well based. In other cases the generalizations were premature and inaccurate. Since this is an essential element in concept formation, it is significant that children attempt to use the process. Inaccuracy and hasty generalizations simply indicate a need for help which adults can supply. The following illustrates the process employed by children:

On Fridays, the teacher in a day-care center for the four-year-old group remained late in the day, so she always arrived later than other days.

Alice: "Today we are going to eat fish."

Maria: "Why."

Alice: "Because when the teach-

er comes late we always eat fish."

Essential to the development of understanding and the successful interpretation of environmental data is the ability to see cause and effect relationships, to make inferences, and to reach logical conclusions. Observations in this study brought about a growing respect for children's ability to employ these processes. For example, Margaret and Laura were watching the teacher modeling clay.

Margaret: "Are you making this for your mother? Who is your mother?"

Laura: "Her mother is her child's grandmother."

The store of information children have today, their continual quest for knowledge, and their struggle to organize information into a meaningful conceptual framework have significant implications for school programs. Teachers of young children must support these youngsters' efforts to acquire and organize information. Nursery schools and kindergartens have usually been more concerned with developing emotional stability and skills of social adjustment than with contributing to intellectual content. They must continue to be concerned with emotional and social development, but it becomes increasingly important to recognize the children's need for help in understanding the ever-widening world that they see and hear about every day.

We must find ways to contribute information to young children that will build these understandings. We must find ways to answer their questions that preserve their great zest for learning. We must find ways to encourage and carefully guide their attempts to put ideas together and generalize about their experiences.

OTHER IMPLICATIONS

There are some rather pointed implications of this study of young children for elementary schools also. It is apparent that children bring to school a background of first-hand and vicarious experiences which have broadened their horizons far beyond their own immediate environment. Their questions and concerns range widely. They are ready to explore some deeper meanings and relationships in community life. Recognizing this, we also recognize that we cannot confine children's interest to their community. They are challenged to explore widely, and we must support their need to do this.

Essential to our utilization and support of the great potentialities of today's children to learn at any level is our recognition of the importance of preserving the willingness to think, reason, and seek answers to questions. More important than any specific information imparted to children are the skills involved in these processes. Teaching methods and materials must support and extend the ability to think, to reason, and to conceptualize or education becomes pointless. •

What about Homework, Foreign Languages, Nonpromotion?

Important Issues in Elementary Education

In Contemporary Issues in Elementary Education

THERE is widespread belief that American education must be more effective. Growing out of this sentiment are pressures for change. It is right and inevitable that these pressures have been directed in part at the elementary school. In fact, the unique potential of that school would justify greater public attention.

Today a number of issues face those who make policy for elementary schools. The following paragraphs treat a few of them.

No skill in education is more fundamental than reading. It is to be expected, therefore, that all concerned would urge early acquisition of that skill. The issue thus arises as to when organized instruction should begin. Because systematic teaching of reading is usually started in the first grade, the issue may be stated as follows: *What should be done with reading in the kindergarten?*

Research on the teaching of reading shows that some children gain from an early start. Others who start early do not, in the long run, progress as rapidly nor develop as great a liking for reading as do children who begin later. Still others are not ready to learn to read even in the first grade. Thus, it is not wise policy to teach *all* kindergarten children to read.

Reported from Contemporary Issues in Elementary Education, *published by the Educational Policies Commission, Washington, D.C. (1960), 10–18, 25.*

The claim of reading to a place in the kindergarten must be assessed in terms of the individual child's ability to profit from reading instruction, and in terms of the relationship of reading to the role which the kindergarten is particularly adapted to fill.

The kindergarten can and should teach reading when it contributes to the goals of the kindergarten, which are to help the young child adapt to school, to find his place in school life and in the group of which he is a member, and to promote readiness for learning in various areas. Reading or interest in reading is already a part of the lives of many five-year-olds. These children should be encouraged to develop their reading skill. Their very presence in the kindergarten may produce in other children the desire to read, and desire to read is a good beginning for acquiring the skill. But the teaching of reading to children who are not ready may create frustration which will inhibit later learning. Thus, the problem of timing the introduction

of reading instruction is a matter of serving pupils on an individual basis, rather than setting a uniform policy.

Coupled with today's interest in the development of the linguistic abilities of Americans is the widespread belief that foreign languages are learned more easily before adolescence. Pressure has developed to begin the teaching of foreign languages earlier, thus the issue: *Should foreign languages be taught in the elementary school?*

The elementary-school years have considerable potential for shaping attitudes toward other peoples. Experiences with other cultures, including their languages, are therefore a valid part of the elementary program.

However, if the goal of the foreign-language program is to promote mastery of the language, organized and intensive instruction becomes necessary. To master a foreign language requires considerable concentration of time and energy. It is not easy at any time of life. Qualified teachers and special materials are required. If the school cannot furnish the time, the teachers, and the materials, it cannot successfully conduct a foreign-language program. If it can furnish them, it must still assess other potential uses of the same time and funds. A foreign-language program is not justified in the elementary school if it encroaches on pupil progress in the areas of the school's basic responsibilities.

A program with the limited goal of promoting an awareness of other cultures and languages and an interest in learning more about them is appropriate in the elementary curriculum. But several conditions must be met before a program designed to teach the language itself should be introduced. The community must be willing to allocate, on a long-term basis, the staff and materials required for language study and must find a satisfactory basis for choice of language. The school must determine which children stand to gain from a systematic and continued program. This means that such a program, while suitable for some pupils, should not include all the children in most elementary schools.

DEPARTMENTALIZED

As the relationship between knowledge and progress has become increasingly apparent, pressure has increased to stress further the knowledge aspect of the elementary-school curriculum by introducing more content from academic fields. In recognition of this practice, the issue has arisen: *Should the elementary school be departmentalized?*

Elementary-school teachers, particularly those who teach the upper elementary years, need substantial knowledge of the subjects which they teach. Departmentalization, therefore, appears attractive. But they also need substantial knowledge of each pupil. Under departmentalization the teacher sees more children, each for a limited

time and in relation to a specific subject, so he is likely to know less about a child than if he saw him for longer and in more varied situations.

Fully departmentalized organization has been tried in some elementary schools; but research and experience have generally caused these experiments to be discarded.

Pupils require stable personal relationships. This does not mean that a child must remain in the same classroom all day with one teacher. Use of special teachers, team teaching, and teacher aides can be of benefit as long as such practices do not hamper the close contact of the classroom teacher and the pupil. The essential condition is that some one teacher have major responsibility for the curriculum and guidance of a group of pupils.

The desire to improve academic accomplishments in the elementary school has led to a demand for more and harder homework at earlier levels. Because learning is produced by a pupil's own efforts, it seems reasonable to demand more effort of the pupil in order to achieve more learning. The issue is: *What kind of homework should be assigned in the elementary school?*

Homework which ties the child's interests and energy to developing intellectual skills or to gaining insight can be valuable. But to assure that an assignment will be of benefit, it must be adapted to the individual pupil.

Assignments must be adapted to the home environment. Homework usually implies a home. But some students live in circumstances which do not merit that name. Little good can come from assignments which cannot be satisfactorily completed without a home library, time for uninterrupted study, or parent interest and cooperation. A mere increase in work will not necessarily produce an increase in learning. Teachers must be aware, also, of the total pattern of a child's day in order to decide how much of that day the school is justified in appropriating.

ACCELERATION, PROMOTION

The wide variation in growth rate among pupils and in their academic accomplishments inevitably raises the question of how they should be grouped and what recognition should be given to their progress. *Should the school accelerate or hold back pupils in terms of their ability to meet a uniform standard of achievement?*

The question should be evaluated in terms of the effect of such a policy on the children concerned.

Acceleration of rapid learners can be good for them. Effective teaching of such children places heavy demands on the teacher. Where other demands limit the teacher's time and energy, the gifted learners may not be challenged, and boredom and underachievement may result. In such circumstances, it may be wise to place these children in a more advanced class. There, at least, they will be

in a closer company intellectually and may be better challenged.

Acceleration, however, though it may provide an acceptable answer for rapid learners, may not be the *best* answer. A child with a high IQ may have the intellectual potential of another child several years older, but he has not had the equivalent experience of life. How far he has developed physically and socially also has bearing on the kind of curriculum he should have and the companionship from which he will most profit. It may well be that his development as a considerate, responsible citizen will be better served by making special provisions for him in a classroom with children his own age, so that he can learn from others and contribute to the learning of others.

Acceleration can also be seriously damaging. By putting too much pressure on the child or by destroying the contact between him and his friends, it may result in increased psychological problems rather than increased learning. The wise policy is to make it possible to accelerate students in those cases in which persons who know the child judge that it will be good for him.

Sometimes it is desirable for a pupil to repeat a year. These cases, however, are rare. Among children who are held back, many set lower goals for themselves, try less hard, achieve no better, and become behavior problems. This damage does not result in compensating gains for the pupil concerned or for other pupils. Where nonpromotion is adopted, the range of abilities in the promoted class remains great, and pupil achievement continues to vary widely. The problem is one of grouping children so as to offer the best possible learning situation for each child and to permit children to progress continuously rather than by inflexible annual promotion.

Those who make the policies which shape the elementary school bear grave responsibilities. No school affects so greatly the lives of so many Americans. Its unique potentials demand that it be treated with the greatest respect. Proposals to change this school must be carefully weighed, recognizing that changes at this level are likely to bear greater consequences for the lives of pupils than equivalent changes at other levels.

One element is common to all contemporary issues and the new issues that will arise in elementary education. This is the central role of the teacher. The teacher, more than any other factor, determines the quality of elementary education. There is no substitute for a person of high integrity, sensitive to children and professionally trained, to perform the teaching function. As a consequence, the citizen who would seriously devote himself to the improvement of elementary education in the United States, should take as his first objective the recruitment, education, and retention in the profession of qualified teachers. •

The Future Looks Promising

The Impact of N.D.E.A. on Counselor Preparation

WILLIS E. DUGAN

In The Personnel and Guidance Journal

A SUBSTANTIAL impact on graduate programs for the preparation of school counselors has been made by counseling institutes provided under Title V-B of the National Defense Education Act. Fifty such institutes, conducted in the summer of 1959, enrolled more than 2,000 counselors and teachers preparing for counseling in secondary schools. It is estimated that 12,000 to 15,000 counselors will be reached by similar institutes subsidized by the N.D.E.A. in a five-year period. This total is approximately equal to the number of counselors presently employed in the nation's secondary schools. Thus, the impact in terms of numbers of counselors to be reached by this program is indeed significant.

Twenty years ago, few colleges and universities were interested in or qualified to prepare counselors and psychological workers for the public schools. Only a small proportion of the nation's schools had counselors or school psychologists. In the past decade, growth has occurred. The number of programs for counselor preparation and the number of counselors has probably tripled, perhaps quadrupled.

Desirable as this growth has been, it has proved largely to be a quantitative growth—an acceleration in numbers of programs and personnel. In the decade ahead, a significant obligation is clear—not only to meet the continuing pressure for more graduate programs and more counseling personnel, but also a demanding responsibility for improvement in quality. Quality not quantity is the really important variable.

Willis E. Dugan is Professor of Educational Psychology at the University of Minnesota, Minneapolis. *Reported from* The Personnel and Guidance Journal, *XXXIX (September 1960), 37–40.*

It appears to me most appropriate at this time to identify some of the positive points of influence deriving from the N.D.E.A. program, and to delineate some of the concerns related to the current acceleration of subsidized counselor-preparation programs.

1. *Strong supportive influence of national leadership.*—The concern of the U.S. Office of Education for improvement in school counseling has alerted not only the public and administrators of public schools, but also institutions of

higher education to their responsibilities in meeting a need for effective guidance and counseling services in the schools. The leadership afforded by the U.S.O.E. staff has been cooperative and strong in a professional sense.

SHARED RESPONSIBILITY

2. *Increased cooperative interaction of related disciplines in the development and operation of counselor-preparation programs.*—The counseling institutes conducted thus far have accelerated the sharing of responsibility for counselor education among college departments of education, child development, and psychology. There is evidence of helpful involvement of other academic disciplines.

3. *Provision of rich opportunities for experimentation and development of new approaches to counselor preparation.*—Unquestionably, existing programs of counselor-preparation need "beefing up." A stronger emphasis on foundation courses in psychology and child development are long overdue. More clearly planned laboratory and practicum activities are needed. Often budget limitations have prevented such development. The N.D.E.A. subsidy and professional staff leadership offer much support for improvement and experimentation.

4. *Development of plans for professionally supervised counseling experience.*—This has represented perhaps the greatest single weakness in existing counseling-preparation programs. Supervised practicum is costly in time, facilities, and ratio of staff to students. N.D.E.A. institutes have supported and improved practicum activities through the much-needed subsidization of this feature.

5. *Increasing attentiveness to selective admission and continuing review of candidates for counselor preparation.*—Overwhelming numbers of applicants for enrolment have forced institutions to examine their selection methods and to establish more effective screening procedures. Extensive selection appraisal and review have been encouraged by the N.D.E.A. institute program.

POINTS OF CONCERN

While the general reaction of this observer of the N.D.E.A. counseling-institute program is favorable, it is possible to foresee some points of concern regarding the impact of this nationally subsidized program. These include:

1. Emphasis extended by the national-level program of counseling institutes might easily give the impression that counselor preparation requires only a short-term "crash-type" training program. Professional organizations and local counseling groups are well aware of the need for higher standards in counselor preparation. Support for this concern is needed at the national level to help balance the demand for quantity of counselors with an equal concern for the quality of preparation.

2. N.D.E.A. institutes must not be permitted to encroach on established, regular programs of counselor preparation. Most institutions of higher education with established programs work with limited staff and facilities. It is possible that subsidized institutes may divert these limited resources. Inroads on the time of regular staff members and imbalance in the use of existing facilities must be avoided.

3. Critical attention must be given by the U.S. Office of Education in the approval of subsidized institutes to provisions for adequate professional staffing and supporting facilities. Counselor preparation requires more than technique courses offered by one or two methods instructors. There is a critical shortage of qualified faculty for both ongoing programs and the new subsidized institutes. A national clearing center of additional qualified staff appears to be needed.

4. Lack of adequate involvement and participation of basic psychology staff and counseling psychologists could well represent one of the marked shortcomings of subsidized counseling institutes. Counselor-preparation programs are located largely in colleges or departments of education. A desperate need exists for qualified psychology staff to seek involvement and participation, not only in the planning stages but also in the actual teaching and operation of the institutes.

5. Evaluation of the total effect of the institutes in attaining the objectives of increasing the number and quality of counselors represents an essential obligation. Both the sponsoring university or college and the U.S. Office of Education must include provisions for institute evaluations. Some provisions for review and reporting have been made, but critical evaluation needs to be extended.

In short, counselor education has prospects for tremendous strengthening through the N.D.E.A. program of carefully planned and selected counseling institutes. The future of counselor education, to this observer, looks exceedingly promising on the basis of this initial year's experience with cooperative national leadership and N.D.E.A. support. •

THERE are some fortunate individuals who seem to know from an early age the work they wish to do. With these individuals, the counselor needs only to give information, such as opportunities in the field or the steps in preparation. Most young people, however, are not so blessed. Some struggle to choose between two or more alternatives, some enter a lifework for which they are unfitted, and some are like members of a student seminar who said they were "A.B.'s"—all befuddled.—From *Midland Schools.*

Quo Vadis?

In Overview

EDUCATORS hear *depechez-vous* and *mach schnell* when it comes to expanding their modern-language programs. But what about Latin? Is this elegant, dead language still an important one in the contemporary curriculum?

When the Uniontown, Pennsylvania, City Schools began revising its language program, school authorities decided to poll some college and university deans for their views on the importance of Latin in the high-school curriculum.

One hundred and thirty-two colleges and universities responded to the school's questionnaire. They were a highly representative group of institutions from all over the United States, including Ivy League colleges, large state universities, state teachers colleges, institutes of technology, parochial colleges, and small women's colleges. The following findings have been reported by Don S. Glass, Uniontown's superintendent of schools.

1. Of the 132 institutions, only three require Latin for admission. Wellesley College, Mass., requires it; Randolph-Macon School for Girls, Lynchburg, Va., requires it but does occasionally admit those with good records and a modern language; and Holy Cross College, Worchester, Mass., requires it for the A.B. degree only.

2. No admission preference is given to students with Latin over those with a modern-language preparation, 120 schools report. Those favoring Latin preparation include the three schools requiring Latin and four sectarian schools. Several responses were admitted to be the personal opinion of the dean of admissions and not necessarily school policy.

3. Eighty-nine schools believe that any need for Latin can be satisfied on the college level.

4. Eighty-six schools strongly recommend four years of one language rather than the common practice of two years of two languages.

5. By a ratio of four to one, four years of modern-language is preferred over four years of Latin for high-school graduates.

6. Where a school program is limited by enrolment, modern-language instruction is recommended over Latin by a two-to-one ratio.

7. Two-thirds of the colleges believe that the related values assigned to Latin, such as classical significance, derivation of word value, mental discipline, language construction, and word recognition,

Reported from Overview, *I (October 1960), 34–35.*

can be satisfied in other areas of instruction without studying Latin. Some replying "no" commented that while this is highly plausible, in many cases it is not being done.

8. Only 12 of the institutions require their graduates to take Latin for graduation on the baccalaureate level. Five of these are sectarian schools.

9. The majority believes that present world conditions dictate a more compelling reason for studying modern languages than for studying Latin. But they hold that Latin should be reserved for those with a scholarly interest in the subject.

10. Technical and engineering schools, specifically, are almost unanimous in their opinion that students should be prepared in modern languages.

A reply from the dean of admissions of a large eastern university seems to place Latin in a just perspective. He said, "Strangely enough, I think that the place of Latin in our culture may be enhanced by the change which I think is coming. Latin will take its place among the other subjects, like Greek and philosophy and archeology. It will attract those who love it—and will be more highly respected by the rest of us because of our respect for the scholars devoted to it."

The switch from Latin to modern languages is not limited to this country. Last spring Oxford University abolished Latin along with Greek as an entrance requirement for science students, and Cambridge University is planning to follow suit. This change has had immediate repercussions in Britain's secondary schools where Latin curriculum offerings are being considerably reduced. •

Those Foreign Languages

• Latin may be in danger of vanishing from the high-school curriculum in this country from lack of teachers, not from any lack of students, according to Sister M. Bede Donelan, professor at College of Teresa, Winona, Minn. Nowhere near enough high-school students continue study of Latin in college and prepare for Latin teaching, she said.

• Americanese—a two-boy conversation: "Wotchagotinatpackage?" "Sabook." "Whatsanamuvit?" "Sadickshunary fullanames. Botta pleecedog, gottagettanamefert."—From *Oklahoma School Boards Newsletter.*

• New Latin Name?: A pupil in junior-high school handed in a collection of leaves with one specimen given the name "Swiggum." The teacher took a second look at the leaf. It was sweet gum.—From *North Carolina Education.*

Elements of Strength and Weakness in Both

Individualized and Group-Type Reading Instruction

RUSSELL G. STAUFFER

In Elementary English

AS long ago as 1888 educators were denouncing the lock-step method of instruction. Lock step meant that all pupils in a class, as one, were required to move forward at the same rate, in the same book, mastering the same amount of material to the same degree of thoroughness. Between the twenties and the fifties, teachers broke away from the whole-class pattern for reading instruction. Arranging children in a class into three groups became the common practice. In three decades it became evident, though, that what was happening was merely the replacement of a whole-class lock step with a three-group lock step.

It seems almost a paradox that, in answer to this challenging three-group, one-teacher circumstance, the movement during the fifties should be toward complete individualization of instruction. Is it any wonder that teachers with questions about how to handle three groups should revolt? If they are concerned—and they have a right to be—about the handling of three groups, just to think about teaching 30 children individually can be distressing.

Much of the effort toward grouping resulted from the advent of standardized tests, increased knowledge of individual differences, and the expanding supply of materials. Accordingly, practices were modified so that the good readers could move ahead in a book while the slow ones were allowed to drop behind and move slowly in the same book.

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Grouping within the bounds of a basic reader was soon found to be inadequate. Publishers responded with five books for first grade and two books for each following grade. This led to the practice of bringing into a classroom a supplementary basic reader to be used by the third, or slow group. Now the three groups had materials; but the teachers, rigorously following plans outlined in teachers' manuals, still found themselves trapped. They just could not do the things recommended and meet each group once a day.

For a time, teachers resorted to having groups II and III do work-

book activities. The end result was that the workbooks deteriorated to "busy work," since the teacher did not have time to guide or check the workbooks.

Independent reading of other basic readers was tried next. Pupils soon discovered that basic readers were not trade books. Immediately questions were raised about the use of basic books that did not have the same grade-level designation as the grade in which they were being used.

Two clearly defined movements have emerged. One, homogeneous grouping on an interclass basis with the practice of using one book. Two, individualized reading instruction. Even a specific defining of boundaries shows that there is a great deal of overlap between the two approaches. Group-directed activities stimulate a great deal of individual thinking, reading, and reasoning. Individualized activities include a lot of group work. Each has elements of strength and weakness.

In a group situation the children benefit from shared experiences, estimates, and predictions—as each one reads the same selection. This permits each member to compare his predictions with those of others, to see how different members manipulated information in order to predict, to compare his conclusions with those reached by others, to evaluate the skills he has used, and to scrutinize the way others extended and refined concepts and generalizations gained through reading. Furthermore, in a group where all deal with the same material, authority for the acceptance of proof rests with the group as well as with the teacher. Each member serves as an auditor, examining and weighing proofs and conclusions presented—frequently by oral rereading.

INDIVIDUALIZED PROGRAM

The primary distinguishing feature of an individualized program is that pupils are not placed in traditional groups. Each pupil is free to work without interruption in order to pursue an interest. Materials read are, in a large measure, selfselected; and purposes for reading are largely selfdeclared and reflect each pupil's interests, abilities, and needs. Purposes may vary from vague, undefined desires for reading fiction to specifically declared goals requiring versatility in rate adjustment, such as reading to skim, to scan, or to study. The teacher is constantly available to give help as requested in attacking words not recognized at sight and in clearing comprehension needs.

An individualized program does not ignore the fact that individuals are social minded. They want to discuss what they read and to profit by the discussion; they want to share with others. So the group or class may often serve as judge or critic while the reader defends and supports his answers. Lines may be read orally to prove points. Papers and talks may be prepared to substantiate claims.

This brief review of the two types of reading instruction highlights the values of each. It is recommended, then, that a modified basic-reader approach be used. To do this effectively one must, first, drop the notion that a basic-reader program in and of itself is final and sacred. It is not. Second, one must drop the notion that time can be equated with equality. Not every group must be met every day for the same length of time. A third idea that must be discarded is that a basic book must be "finished" by all pupils in a grade before they can be promoted. Another practice that must be stopped is that of teaching reading as a *memoriter* process by presenting new words in advance of the reading and then having pupils tell back the story. If reading is taught as a thinking process, even short basic-reader stories will be read with enthusiasm.

Where instruction has been individualized, a frequent pupil comment is, "At last reading is interesting. Now we enjoy reading." Such comments are severe indictments of the misuse of basic readers. Teachers must be sure to provide many books and allow children to make their own selections.

Effective skills of word attack must be taught. Basic-reading books do not provide for such skill training. Such skills are presented only when studybooks or workbooks are well organized. Studybooks designed to parallel the basic-reader programs should be used and the skills should be taught systematically.

The reading program should be divided so as to allow about half of the time for each approach—a basic-reader program and an individualized program. This might be done by using the group approach with basic readers for a week or two, and then the individualized or selfselection approach for a similar period of time. Where a pupil is free to select his own materials day after day for two or three weeks, he is almost forced to examine his interests and decide carefully what he wants to do.

This modified basic-reader approach allows for the use of basic readers designed to develop reading-thinking skills in a group situation. The individualized reading program allows for seeking, self-selection, and pacing—with a library as the source of materials.

At first some pupils may find it difficult to assume responsibility and to participate in group action. They may be passive and aquiescing; they may be aimless; they may display anger or frustration. For these pupils, both the teacher and the class must feel a responsibility. Above all, though, controls must be exercised in so humane a way that a pupil's willingness to express himself and to participate in group actions will not be inhibited. He must not necessarily be joined with others in pursuing an area of interest or need. He must be led to recognize and pursue his own interests and needs. •

Results Are Only Partially Successful

What Should Schools Accomplish in English Teaching?

In The First Two R's . . . Plus

ENGLISH is the native language of nearly 300 million men, women, and children. It is a second language for even more. It is studied in classes and by individuals everywhere in the world. A businessman in Tokyo who knows no French writes in English to a businessman in Paris who knows no Japanese, and the two understand each other.

Teachers in our schools today attempt to teach "good" English. But what is good English? This involves much more than correct spelling, or using the right verb or the right pronoun, or putting commas where they belong. Such things are important, but correctness alone does not result in good writing or speaking. Knowledge of grammar without practice in employing that knowledge does not result in good English. Analysis of sentences and drill on forms are not enough.

A paragraph may be free of "errors" and yet not be good English because it says nothing significant, or because it is vague, badly organized, or lifeless. Good English involves clear thinking, careful organization of thoughts, and choice of words that most clearly and efficiently convey those thoughts.

English, like every other language, is constantly changing. The English of a thousand years ago looks now like a foreign language, and even that of two or three centuries ago differs much from ours. Modern teachers try to help students follow the usage of educated men and women of today.

Reported from The First Two R's . . . Plus, *a pamphlet for parents published by the National Council of Teachers of English, Champaign, Illinois (1960), 3–8.*

There is some evidence that today's elementary and secondary graduates read, write, and speak better, on the average, than did children in the past. But today's world demands so much linguistic skill that the average level of ability is not high enough. No one claims that the results of the millions of child-hours spent annually in learning English are as successful as is desirable. Here are some reasons why the results are only partially successful:

First, many teachers assigned to teach English classes have only superficial knowledge of English; some do not really know what good English is; some have little ability to read and interpret literature. Either because of the teacher shortage or for other reasons, many ele-

mentary classes are taught by teachers with little college work in English; in some high schools, half or more of the English classes are taught by teachers who lack a college English major.

Then, too, many elementary classes are too large to permit much individualized attention to children. In such a situation, adequate teaching of language skills is impossible.

Many secondary English teachers also teach considerably more than the 100 students per day that is recommended by the National Council of Teachers of English. It takes about eight minutes to analyze constructively a short composition. Mere grading without constructive help is useless. To grade 150 compositions a week requires 20 hours, in addition to the 25 hours in class, 5 or more hours for other school activities, 5 hours for clerical tasks, and 10 hours in lesson preparation. Faced with a 65-hour week, many teachers are forced to slight work in composition.

In addition, acceptance of the responsibility by *all* secondary and college teachers for demanding effective writing in their classes, whatever their subject is, is slow in coming. And acceptance of the responsibility in every home to encourage well-spoken English and to foster reading of good literature is also slow in coming.

To make English teaching more successful, much additional basic research is needed to discover how children learn the complex skills of reading, writing, speaking, and listening. Comparatively few federal or foundation grants are made to help in this research or to help teachers improve the skills and knowledge they already possess.

ELEMENTARY PROGRAM

What really should the elementary school accomplish if English teaching is to be successful? The elementary schools, together with the home, provide the foundation on which all later learning rests. If a child learns the basic skills of language, his success is more likely in *all* school work, for mastery of most school subjects depends on competent reading, writing, listening, and speaking. In addition to serving as a useful tool, language competency helps the child to develop social understanding, to appreciate beauty, and to discover more about himself and the world in which he lives.

A good elementary-school program in the English language arts includes:

Continuing instruction in reading, leading in the upper grades to material with excellent literary qualities, though on subjects and in language that children can understand.

Continuing instruction in writing, proceeding from simple group compositions to both factual and "creative" compositions of two or more paragraphs.

Instruction in specific skills, such as spelling, punctuation, and letter writing.

Frequent speaking activities, both individual and group, for pleasure as well as for information.

Rich experiences in all classes, involving the use of language many times every day with consequent expansion of vocabulary.

Above all, instruction consistent with each child's individual needs and abilities. Not all children come from equally favored backgrounds, learn at the same rate, remember equally well, or have equal sensitivity to language, but all can and should be helped to stretch for something beyond their immediate grasp.

SECONDARY PROGRAM

Now what about the secondary schools? What should they accomplish? Secondary teachers necessarily build on what children have already learned. In turn, they are providing instruction that will help their students later, either in college or outside school walls. Fortunately, the knowledge and skills needed for success in college do not differ greatly from those needed for success in most jobs.

A good secondary English program should include the following:

Instruction in advanced reading skills, such as reading for specific purposes, adapting speed to material and purpose, critical reading, skimming, and use of indexes and other tools.

Study of much material of high literary quality, along with mastery of the basic terminology needed for intelligent discussion of literature, and some study of the mass media.

Much practice in writing of varied types and for different purposes, with stress on organization and on focusing of thought, and with careful comment by qualified teachers.

Study of the nature of language in general and of the characteristics of the English language in particular, as well as advanced work on such specific skills as spelling and punctuation, and stress on selection of exact and effective words and grammatical structures. English communication is not words but wording.

In all classes, challenging and maturing experiences involving use of language in speaking and writing.

Steady attention to each student's individual linguistic needs, and gradual increase in difficulty to challenge his rising level of ability. •

• Lucy, a third grader, proudly showed her report card to her mother and said, "Mother, me and Tommy is the best they is in English."—From *The Christian Science Monitor.*

• Steve, 6, was sure it was wrong to say, "I'm the strongest, aren't I?" Asked what he would say, he replied, "I'm the strongest, huh?"—From *Parents Magazine.*

Conflicting Assumptions in the Teaching of English

G. Robert Carlsen
In The English Journal

SLOWLY but surely, for a period of about 50 years, a gulf has been developing between the assumptions traditionally held by English teachers about the nature of the language arts and the assumptions forged by research scholars and theorists in the field.

For the purposes of this discussion, the conventional assumptions held, probably by the majority of classroom teachers of the United States, will be designated as *traditional*. The assumptions growing out of research and theory will be called *modern*. The assumptions cluster around several important ideas, but each one develops a specific aspect.

As an initial point of conflict, the traditionalist assumes that, if instruction has been successful, language usage by a group should be absolutely uniform. He believes that in the syntax, the vocabulary, the forms, the spelling, the pronunciation, and the semantics of a language, all people should be brought into perfect harmony. The teacher may insist that a word has a single meaning.

Opposed to that viewpoint, the modern teacher assumes that while there is a core of commonality in the language of a group, the language is subject to almost infinite variations among its users; that stamping out such variations is not necessarily desirable. The modernist believes that language is related to total personality and that language structure varies with one's personality, with the impact one is trying to make, and with the message that one is communicating. Word meaning is subject constantly to the meaning that the users intend for it.

In another point of departure, the traditionalist assumes that the same kind of language should be used in all activities. Frequently teachers despair because they observe certain usage habits in their classrooms and different language usage on the playground.

The modernist, however, believes that a child who varies his language in this manner has made a sound observation about language. As with clothing or manners, we

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adjust to the situation we are in. Language habits become more relaxed in intimate circumstances and more conventionalized in formal situations.

The two viewpoints also disagree on the basic rules of the English language. For the traditionalist, the rules are absolute and unchanging. The modernist believes that there are no permanent, absolute rules for English, since it is constantly changing.

The structure of the language to the traditionalist is almost sacred and inviolate. Actually, since such a teacher is accepting pronouncements about language made 200 years ago, he is attempting to make language static and to have children learn the English language of the eighteenth century. Conversely, the modernist knows that language is constantly in the process of change. The traditionalist says that the more prevalent an error, the more reason for working on it; the modernist feels that the more prevalent a particular usage in the language of speakers and writers, the less reason there is for spending time on it.

An important area in the conflict is the opposing viewpoints about verbal knowledge of language structure. How often the traditional teacher says, "A workman must know the names and properties of his tools. Knowledge of the parts of language is necessary, since these parts are tools that are fundamental to our using the language." Thus, knowledge of the parts of speech, the parts of a sentence, the kinds of sentences, and such techniques as parsing and diagramming sentences becomes fundamental to the program of instruction.

The modernist, on the other hand, feels that even for an auto mechanic, knowing the names of his tools is not as important as learning to perform with his tools. The teacher holds, therefore, that children learn habits in language by reading, writing, speaking, and listening in situations that demand these communicative skills.

And so it goes throughout the language-arts curriculum. In the traditional program, children insert commas in a thousand sentences in workbooks. They learn to take part in discussions, presumably, by practicing on topics which are listed in a textbook chapter on discussion. And the modernist teaches from a belief that language is best taught when students are writing for a real audience and are helping their reader to understand their meaning by the use of commas. He believes discussion is best taught in situations in which it has a vital purpose for the youngsters.

The traditional teacher also believes that unless all facets of language are presented formally a child will not learn to master the language, while the modernist believes that most language habits are learned by imitating the language of the people with whom one associates. In practice, the traditional programs stress reading

and writing, the two least used of the language arts. The modernist feels that the basic forms are oral, and he increasingly stresses oral communication. Writing is not forgotten in the modern program, but the modernist believes the chance is greater that instruction in oral skills will transfer to proficiency in written skills rather than the reverse.

LITERATURE

In the area of literature, the lines of divergence are drawn sharply. The traditionalist believes that there is a clearly-defined line between great literature with a capital *L* and other kinds of writing. The modernist contends that there is a continuum between the poorest and the best in literature.

The traditionalist constantly questions reading, "But is it literature?" In some periods, the whole body of American writing has been dismissed with this statement, and today most of the books written for adolescents are similarly treated. The modernist, on the other hand, feels that attempts to evoke a situation through writing are literature, though the degree of writing success may vary tremendously. Further, the modernist assumes that what is significant varies for each reader in terms of his sex, age, background of experience, and his needs of the moment.

Believing that children will never find and read the great monuments of literature unless the school teaches these great works, the traditional approach is to expose children only to the best in literature so that they will come to prize it. And the modernist teaches with the belief that if the schools develop an interest in reading, even though it is through using second-rate materials, that interest will later lead the reader to many of the great works when he has the ability and maturity to read them.

In order to sharpen the distinctions between the traditionalist and the modernist, I have stated the extremes in points of view. Obviously the programs effected in the classroom and the methodology employed by these two schools of thought differ radically. Many teachers suggest that we take a middle ground, that we use in our instruction both points of view. This develops an eclecticism in teaching that is inclined to leave a program rudderless, for the direction of the instruction swings between two poles and only confusion results.

It is possible, of course, that a new synthesis can take place that will transcend either of the present points of view. But for the present we have the two differing beliefs: The traditionalist seems to subscribe basically to the concept of language as a skill, while the modernist's viewpoint is implied in the concept of teaching the language arts as art. To teach a skill is to teach—from the outside—something relatively mechanical. To teach an art is to develop—from the inside—something deeply personal. •

With Education in Washington

THE EDUCATION DIGEST WASHINGTON BUREAU

Election Returns.—The election of John F. Kennedy has brought elation to the National Education Association; uncertainty about its future to the Office of Education; and to the American Council on Education—a chance for getting a former Cabinet member as its next chief administrator.

The NEA is happy about the Kennedy victory because the winner has been a consistent supporter of federal aid to education. The Office of Education is concerned about its future because the Democratic sweep means that the Secretary of Health, Education, and Welfare and the U.S. Commissioner of Education will be replaced. Both are Eisenhower appointees. And while it is uncertain where Commissioner Lawrence Derthick will go from his post as top federal education officer, there are indications that Secretary Flemming may become the next president of the American Council on Education, succeeding Dr. Arthur S. Adams, who has retired.

The Big Question.—The big post-election question occupying Washington's education leaders is: What does the new regime mean for education as a whole?

The Democratic Party and Mr. Kennedy promised more action on behalf of education than did Mr. Nixon and his Republican Party. The victor's list of promises and pledges is long and will be both difficult and costly to fulfill. It includes such diverse programs as federal grants for school construction, teachers' pay, adult education, educational television, college housing, technician training, library services, fellowships, scholarships, loans for needy college students, vocational education (more liberal grants), a Youth Corps, and a Peace Corps.

While few in Washington doubt the President-elect's sincerity in wanting to see his promises carried out, they doubt whether he will be able to get Congressional approval for all his plans.

The bold Kennedy program, observers believe, might run into trouble in the House of Representatives. The Democratic majority in that chamber has been reduced by 20 seats. In addition, quite a few Northern liberals have not been returned to Congress, while the conservative Southerners retain the key positions they held during the past decade when all efforts to pass federal aid to education were blocked.

Nevertheless, educators expect that Kennedy during his administration may be able to push through the following:

✓ A broad federal-aid-to-education bill, leaving the states free to establish priorities between teachers' salaries and school construction.

✓ Continuation and expansion of the National Defense Education Act, with the addition of scholarships for needy, qualified students, graduate and undergraduate.

✓ Continuation of the college housing loan program, including loans and matching grants for dormitory facilities, classrooms, libraries, and laboratories.

✓ A peace corps of young college graduates to work as technicians in underdeveloped countries. Such service probable would be an alternative to the military draft.

Federal-Aid Prospects. — Questions involving cost, religion, and segregation have generated opposition to many a federal-aid-to-education bill in recent times. How will the Kennedy administration meet these?

Observers in Washington believe that the new administration is better prepared to meet these historic obstacles than any previous regime. Part of the reason lies with the Kennedy personality; part with the temper of the times; part with the turns of political fortune.

Take first the claim that federal aid to education can become so costly the nation will not be able to afford it. To this, Mr. Kennedy is apt to reply that our affluent society must invest its growing wealth not in more goods but in an expansion of public services. The President-elect holds to the theory that our gross national product will grow and grow. One way to keep it growing is to invest in public service that portion which we do not require for food and shelter and material needs. The most important of these services are education and research.

Federal-aid bills have frequently foundered on the question of aid for private and Catholic schools. Mr. Kennedy is opposed to the use of public funds for church schools. His views should be strong enough to keep the religious question out of federal-aid-to-education debates.

Segregation has also proved a trap for federal-aid bills. Northern liberals fought the idea of providing federal dollars to Southern schools which practice segregation —hence the Powell amendment's troublesome and historic role in recent years. Representative Adam Clayton Powell is a Negro Democrat from New York State. He has held tenaciously to the notion that no federal appropriations should be given to states which discriminate against citizens because of color. And once the Powell amendment is attached to basic legislation, such as school measures, the Southern bloc is often successful in killing the legislation altogether.

Now comes the strange turn of political fortune.

According to the seniority system, Representative Powell will become chairman of the House Education and Labor Committee. Mr. Powell, acting on this assumption, held a news conference in which he foresaw quick action on a broad school bill to be approved

by his committee. He saw no need for hearings and he hoped to have a bill reported by February 1. At that time it would go to the Rules Committee (which might or might not be reformed after January 1961). Looking even further ahead, Mr. Powell said that he planned to withhold his controversial amendment because it would give the Rules Committee an opportunity to hold up the entire legislative proposal. Powell, however, did reserve the right to offer his amendment later on the floor of the House during debate.

Textbook Publishing Trends.—Officials at the U.S. Department of Commerce are paying more than usual attention to trends in the textbook publishing industry. And for good reason.

The industry has grown so enormously that today one company does as much business in dollar volume as did all publishers combined in 1939. In that year total sales amounted to $50,000,000. Today total sales have soared to $350,000,000.

But Washington is keeping an eye on the textbook industry for two other reasons.

During the past 12 months, close to a dozen textbook publishers have been affected by the sale, merger, or consolidation of their companies. In most instances, small companies were taken over by larger, richer concerns. Others which retained their identity changes their method of financing —placing their common stock for sale for the first time.

These trends are causing greater concern among education officials than among officials watching business trends and trade practices. The changing complexion of the textbook publishing business may deeply affect the quality of teaching and learning in the nation's classrooms.

On the one hand, large and well-financed publishing houses are a good thing, making possible solid writing, generous illustrations, and authoritative information.

On the other hand, heavy investment calls for nation-wide sales and "bland subject-matter presentation" in order to offend the smallest possible number of potential book-buying school districts.

It is this blandness which gives rise to concern. Traditionally, publishing has been carried on by family-owned enterprises in which the owners took a personal interest in their authors and editors. They took chances and provided variety, being accountable only to themselves and the co-owners they knew personally and intimately.

The public sale of textbook shares means that management must become more profit-minded. This calls for large sales and the application of mass-marketing principles. It may mean the neglect of good authors with strong points of view.

Higher Education Is Not Cheap.—Higher education appropriate to

the times can never be cheap. It will become more expensive.

This is the reply of the American Council on Education to those pressure groups calling for "greater economy" in operating colleges and universities and to those who believe we can provide higher education for large numbers of people on a bargain-basement plan.

The Council's statement was framed by its committee on problems and policies, headed by Nathan M. Pusey, Harvard president. Its other 12 members are mostly university presidents. Although the policy statement deals exclusively with the economics of higher education, it is couched in such general terms that not a dollar sign appears in the entire text.

The signers of the statement point out, however, that we invest only a tiny fraction of our national income in higher education—about 1 percent. We must raise that figure, the statement argues.

Mr. Pusey and his group then react to a few of the assorted charges made against the administration of higher education.

Charge 1: "Colleges and universities should operate more efficiently." The Pusey committee agreed, but added: "Educational institutions do not produce standardized products and it is a mistake to impose common denominators of accounting on them."

Charge 2: "Campus buildings are too elaborate. Some college facilities are simply luxuries."

Said the policy statement: "Part of education's task is to provide an environment in which young people may become more sensitive to truth and beauty. The esthetic appreciations to be drawn from great literature, from conversation and lectures, from experiencing various art forms, and from living among well-designed buildings are important."

Charge 3: "Higher education indulges in too many wasteful practices."

Those critics who make the "wasteful" charge have in mind reputedly high salaries for some professors and richly endowed libraries or laboratories. But Mr. Pusey and his group focus their attention on two other types of waste. Says the statement: "A great waste in higher education comes from the unnecessary duplication of programs, both among and within institutions."

Wasted opportunity is another great loss in higher education, the policy statement insists. "Sometimes this results from poor teaching; sometimes, from inadequate student response. Both the incompetent, indifferent, or inept teacher and the poorly motivated or misplaced student have much to answer for here."

Colleges and universities should examine the ways in which they are utilizing personnel, facilities, and space. But such an examination, while eliminating some wasteful practices, will inevitably call for an increased investment, the statement concludes. •

Educational News

CHANGES IN SUPERINTENDENCIES:

Medford, Mass.: **John Houston,** formerly assistant superintendent at Quincy, Mass., has succeeded **Bertrand Hooper,** retired.

Saratoga Springs, N.Y.: **Byron Evans,** formerly assistant superintendent, Highland Park, Mich., has succeeded **Claude Van Wie,** resigned.

Canton, Ohio: **Gordon C. Humbert,** formerly of Lima, Ohio, is now superintendent.

Urbana, Ill.: **James H. Cherry,** formerly assistant superintendent at Joliet, Ill., is now superintendent.

Portland, Ore.: **J. W. Edwards,** superintendent since 1953, has announced his retirement, effective July 31.

Appleton, Wis.: **Royce E. Kurtz,** now superintendent, Greencastle, Ind., has been named superintendent, effective Jan. 15.

Rutherford, N.J.: **David J. Brittain,** formerly administrative assistant, is now superintendent.

COLLEGE PRESIDENTS:

Western State College of Colorado, Gunnison: **Grant Venn,** formerly superintendent, Corning, N.Y., has succeeded **Peter P. Mickelson** as president.

Olympic College, Bremerton, Wash.: **J. D. Park,** formerly dean of education, Georgia Southern College, is now president.

Central State College, Edmond, Colo.: **Garland Godfrey,** formerly superintendent, Durant, Okla., has assumed the presidency.

TEACHER-TRAINING INSTITUTIONS:

University of North Carolina, Chapel Hill: **E. C. Merrill,** formerly of the University of Rochester, N.Y., is now professor of education and head of the program for training school administrators.

Indiana University, Bloomington: **Lorin A. Burt,** formerly superintendent, Kendallville, is now on the school of education faculty and executive secretary of the Indiana School Boards Association.

University of Denver, Colo.: **Ralph A. Forsythe,** formerly superintendent, Riverton, Wyo., is a new member of the college of education faculty.

Northern Illinois University, De Kalb.: **Robert Gourley,** formerly superintendent, Leaf River, Ill., has been named assistant professor of education.

OTHER CHANGES AND APPOINTMENTS:

Woodrow W. Wilkerson, formerly Virginia state director of secondary education, has been named Virginia state superintendent of public instruction, succeeding **Davis Y. Paschall,** now president of the College of William and Mary.

J. C. Wright, superintendent of public instruction for Iowa, has resigned to direct the program of the AASA's Committee for the Advancement of School Administration.

Robert A. Finney, general manager of the Humboldt Brick & Tile Co., Kans., has been named chairman of the education committee of the U.S. Chamber of Commerce.

TV Teaching

THE value of TV teaching is again emphasized in the second-year report of the National Program in the Use of Television in the Public Schools (1958-59), recently issued by The Fund for the Advancement of Education.

The test results in the new report show that 97 comparisons favor TV students, 44 favor control groups; 40 cases show significant differences in favor of TV groups, 12 in favor of control groups.

Other results reported include: TV lessons are more carefully planned than conventional lessons. More material can be covered by TV than by a teacher in a conventional classroom. With rare exceptions, discipline has not been a problem in the large classes. Students are learning at an early stage the art of taking notes and the ability to concentrate. Students have had to accept more responsibility for their own learning and have done so. And the classroom teacher, far from being relegated to a minor role, has assumed new importance.

Free Summer School

TUITION fees charged for summer school sessions in Connecticut were recently ruled to be illegal by the state's attorney general.

The attorney general declared that summer sessions are extensions of the regular public school service, and must be free.

Marion McGhehey, state school-law consultant of the U.S. Office of Education, points out that 30 states have constitutional requirements to operate free schools. Four other states, including Connecticut, require free public education by statute.

In many states, Dr. McGhehey explains, some local boards continue to charge fees unless the constitutionality of this practice is specifically challenged in a court action. The Connecticut ruling is believed to be the first to relate directly to summer sessions.

In Connecticut, indications are that special budgetary provisions will have to be made during the coming year by the legislature in order to accommodate the ever-increasing demand for summer instruction.

AASA Regionals

"EDUCATION for the Challenges of of Tomorrow" will be the theme of the regional conventions of the AASA, to be held in February and March in San Francisco, St. Louis, and Philadelphia.

A new program format will be featured at four of the seven general sessions at each regional meeting, according to Forrest E. Conner, AASA president. This format includes speaker-analyst teams who will discuss disciplines related to education, each team member looking at a particular discipline from a different angle.

The San Francisco meeting will be held Feb. 25-28; St. Louis, Mar. 11-14; and Philadelphia, Mar. 25-28.

New Organization

A NEW organization to discover and encourage future scientists now in high school has been announced by Robert H. Carleton, executive secretary of the National Science Teachers Association, NEA.

Known as the Future Scientists of America (FSA), the organization aims to develop a reserve of science potential. It will function as an extracurricular activity.

The Science Achievement

Awards for students, conducted by the National Science Teachers Association for the last nine years, will be an integral part of the new FSA program under the name of Future Scientists of America Awards.

Teacher Examinations

THE National Teacher Examinations, prepared and administered annually by Educational Testing Service, will be given Feb. 11, 1961, at 160 testing centers throughout the U.S.

At the one-day testing session, a candidate may take the common examinations, which include tests in professional information, general culture, English expression, and nonverbal reasoning; and one or two of 13 optional examinations, which are designed to demonstrate mastery of subject matter to be taught.

Information on the examinations may be obtained from Educational Testing Service, 20 Nassau St., Princeton, N.J.

College Teacher Preparation

A SERIES of grants to expand, speed, and improve the preparation of college teachers was recently announced by the Ford Foundation.

The grants, which totalled $2,355,000 made to 14 universities, will support a new, concerted effort to help strengthen the master's degree as a sound, qualifying degree for college teaching. The rapid expansion of college faculties is making the master's degree, rather than the Ph.D., the predominant level of preparation of most newly employed college teachers, the Foundation reports.

The Foundation also recently announced three new grants totaling $561,000 in its ongoing program aimed at a breakthrough in the preparation of elementary-school and secondary-school teachers. The grants were made to Miami University, Oxford, Ohio; Webster College, Webster Groves, Mo.; and Yale University.

School Fire Safety

"ONLY when fire safety in school gets as much attention as oversize gymnasiums, pastel colors, and other 'new look' trimmings can we expect to escape another Chicago school tragedy," Chester I. Babcock, manager of the fire record department of National Fire Protection Association, told members of the Association at its November convention in Columbus, Ohio.

Mr. Babcock pointed out that apathy seems to be settling in once more in regard to fire protection in schools. He said that there are several false assumptions current. One dangerously false assumption is that "because a school building is new, it must be safe," he said.

Another is that there are no tested and certain methods to assure safety. Three basic principles mentioned by Mr. Babcock to protect a school were: at least two safe ways out from every occupied part of the school; automatic means for

prompt discovery and control of fire; and reducing to a minimum the amount of material in the building which can burn.

New Research

A TWO-YEAR research study on "The Development of Basic Attitudes and Values toward Government and Citizenship during the Elementary-School Years" has been started at the University of Chicago.

The new project, which has been approved by the U.S. Office of Education as part of its Cooperative Research Program, will receive $136,119 from the federal government for its support. The University of Chicago also will contribute.

Director of the research project will be Robert D. Hess, associate professor of human development, and David Easton, professor in the department of political science.

Closed for Jewish Holidays

NEW York City schools are officially being closed this year, for the first time, on Jewish holidays.

The action, taken by the school board on recommendation of Superintendent John J. Theobald, was not the high Jewish school population, but the large number of teachers who do not work on the high holidays.

Low-Cost Teaching Machine

TEACHING machines are very much in the educational limelight this season. One of the newest items of interest in this field is an announcement by Grolier, Inc., publisher of The Book of Knowledge and Encyclopedia Americana, that it is placing on the market a $20 device that will enable educational institutions to experiment with the new teaching technique and integrate it into their curriculum at extremely low cost.

DATES OF THE MONTH:

Dec. 5-9, American Vocational Association, Los Angeles, Calif.

DATES OF THE COMING MONTHS:

Jan. 9-12, White House Conference on Aging, Washington, D.C.

Feb. 11-15, National Association of Secondary-School Principals, Detroit, Mich.

Feb. 22-25, American Educational Research Association, Chicago, Ill.

Feb. 25-28, American Association of School Administrators, regional conference, San Francisco, Calif.

Mar. 5-8, Association for Higher Education, Chicago, Ill.

Mar. 11-14, American Association of School Administrators, regional conference, St. Louis, Mo.

Mar. 12-16, Association for Supervision and Curriculum Development, Chicago, Ill.

Mar. 18-22, Department of Elementary School Principals, NEA, Atlantic City, N.J.

Mar. 25-28, American Association of School Administrators, regional conference, Philadelphia, Pa.

Mar. 25-29, National Science Teachers Association, Chicago, Ill.

April 4-7, National Catholic Educational Association, Atlantic City, N.J.

April 5-8, National Council of Teachers of Mathematics, Chicago, Ill.

April 16-22, National Library Week.

Anxiety in Elementary School Children. Sarason *et al.* New York: John Wiley & Sons, Inc., 1960. Pp. vi + 351. $7.75.

This book is based on the findings of a research team that spent six years intensively studying and examining anxiety in children and the effects of anxiety in test performance.

The material is not at an introductory level. It is quite technical and a minimum requirement would be familiarity with the more commonly used tests and testing procedures. The relationships and discrepancies between performance and potential, and the importance of these elements in a test-giving, test-taking culture are emphasized.

Among the major conclusions which emerge are that a child's perception of himself in relation to the testing situation affects his test performance, and that for many children a degree of anxiety is aroused which interferes with the maximum use of their potential.

The final chapter of the book contains a challenging critique of the nature and aims of the testing programs in our schools.

The Process of Education. Jerome S. Bruner. Cambridge: Harvard University Press, 1960. Pp. xvi + 92. $2.75.

In September 1959, approximately 35 scientists, scholars, and educators assembled at Woods Hole on Cape Cod to discuss how education in science might be improved in our schools. The meeting had been called by the National Academy of Sciences.

This book grew from the discussions at Woods Hole. It is a collection of concise essays by the chairman of the conference. The conclusions presented here have meaningful material for the total curriculum.

A prominent conclusion is that children are capable of grasping the basic concepts of science and the humanities far earlier than has ever been thought possible.

The important ideas of "structure" and "intuition" and their relation to intellectual development are examined not only from a psychological point of view but also from the practical standpoint of putting together a school curriculum.

Focus on Values in Elementary Education. Laura Zirbes. New York: G. P. Putnam's Sons, 1960. Pp. xi + 238. $4.50.

This book examines the values which contribute to the quality and improvement of teaching in the elementary schools. Many classroom examples are used to illustrate the author's points and a "case-finder" appendix is employed that explores actual classroom situations.

The content concentrates on the lower grade levels of the elementary school. The book is designed for both preservice and in-service use in the problems of learning, teaching, and living in today's elementary schools.

Policies and Practices in Higher Education. Algo D. Henderson. New York: Harper & Brothers, 1960. Pp. xiii + 338. $5.75.

This book deals with the forces and trends affecting contemporary higher education. It is not a history of higher education, being primarily concerned with the current scene.

The author states in the preface: "I believe that our concepts of the nature and aims of higher education have been changing . . . I feel that the causes of changes and the trends of the future can be identified. To a certain extent, my intention has been

to express a definite point of view about the role and the future of higher education."

In discussing the role of higher education, the author raises and answers such questions as: What should be taught? To whom? Toward what ends? How should education be financed? Should there be more discrimination in admitting students? And what is the future of the small private college?

The author, now director of the Center for the Study of Higher Education, University of Michigan, is a former president of Antioch College and has served on the President's Commission on Higher Education.

The Effective Board. Cyril O. Houle. New York: Association Press, 1960. Pp. xvii + 174. $3.50.

Noting the bewildering variety of voluntary associations—all operated by boards and involving committees—this author has prepared a text to guide boards into effective action. The material is well organized and presented in a highly readable style.

Intended to aid both the beginner and the experienced board member, the book covers board organization and operation as well as short cuts to good practice for its members and staff.

Policies for Science Education. Edited by Frederick L. Fitzpatrick. New York: Bureau of Publications, Teachers College, Columbia University. 1960. Pp. xiii + 219. $3.95.

Frederick L. Fitzpatrick is director of the Science Manpower Project at Columbia University. In 1956 (before Sputnik, the project was organized for the purpose of fostering the improvement of science education. This book, with Fitzpatrick as editor, presents the findings and recommendations of the scientists and educators who worked on the project.

The first section deals with existing problems and trends followed by a discussion of policies for providing better instruction and effective administration of science programs. The book is concerned, primarily, with science programs and instruction at the elementary, junior-high, and secondary-school levels.

One chapter is devoted to an analysis of the education of science teachers, with suggestions for changes in present practices.

OTHER MATERIALS RECEIVED:

ELEMENTARY

101 Science Experiments. Illa Podendorf. Chicago: Childrens Press, 1960. Pp. 157. $4.50. Experiments in the following subject areas: air, magnets, electricity, water, sound, light, simple machines, heat, chemistry, and plants.

Time Is When. Beth Youman Gleick. Chicago: Rand McNally & Company, 1960. Pp. 40. $2.75. Answers questions on time for beginning readers.

I Want to Be an Airplane Hostess, I Want to Be a Dentist, I Want to Be a Librarian, and **I Want to Be a Cowboy.** Carla Greene. Chicago: Childrens Press, $2.00 each. For the beginning reader.

In All Our States. Paul R. Hanna, Clyde F. Kohn, and Robert A. Lively. Chicago: Scott, Foresman and Company, 1960. Pp. 288. $3.32. Grade 4 in the Basic Social Studies Program series. Teacher's edition includes a 208-page guidebook.

Heroes of the Western Outposts, Settlers on a Strange Shore, Men on Iron Horses, and **Explorers in a New World.** Edith McCall. Chicago: Childrens Press, Inc., 1960. Pp. 128 each. $2.50 each. New titles in the Frontiers of America series.

Sir Isaac Newton. W. Robert Hou-

ston and M. Vere DeVault. Austin, Tex.: The Steck Company, 1960. Pp. 44. $1.75. For ages 8-12.

The True Book of Animal Homes and **The True Book of Plant Experiments.** Illa Podendorf. Chicago: Childrens Press, 1960. Pp. 48. $2.00 each.

Elementary Teachers Guide to Free Curriculum Materials. (Seventeenth Edition.) Edited by Patricia H. Suttles. Randolph, Wis.: Educators Progress Service, 1960. Pp. xiv + 345. $7.50.

Secondary

People to Remember. Adapted by Gertrude Moderow. Chicago: Scott, Foresman and Company, 1960. Pp. 296. Contains 16 biographical sketches with discussion questions. Teen-age interest level written at fourth- and fifth-grade reading level.

Story of Nations. Lester B. Rogers, Fay Adams, and Walker Brown. New York: Holt, Rinehart and Winston, Inc., 1960. Pp. xiii + 802. $5.56. A well-illustrated history textbook.

Past to Present; A World History. Sydney H. Zebel and Sidney Schwartz. New York: The Macmillan Company, 1960. Pp. xii + 708.

Supplementary Units in Contemporary Arithmetic and Elementary Algebra. Edwin I. Stein. Princeton, N.J.: D. Van Nostrand Company, Inc., 1960. Pp. 75. $1.50, paperbound.

Modern Physics. Charles E. Dull, H. Clark Metcalfe, and John E. Williams. New York: Holt, Rinehart and Winston, Inc., 1960. Pp. ix + 662. $4.96. Well-illustrated text.

Things to Do in Science and Conservation. Byron L. Ashbaugh and Muriel Beuschlein. Danville, Ill.: The Interstate Printers and Publishers, Inc., 1960. Pp. ix + 163. $2.50.

World Geography Today. Saul Israel, Norma H. Roemer, and Loyal Durand, Jr. New York: Holt, Rinehart and Winston, Inc., 1960. Pp. vii + 536. $5.56. A survey of human geography as well as physical geography.

Springboard to Journalism; A Study Guide in School Newspaper Practices. Edited by Benjamin W. Allnutt. New York: Columbia Scholastic Press Advisers Association, Columbia University, 1960. Pp. 88. $3.00.

College

The National Defense Student Loan Program; Basic Facts. U.S. Office of Education Pamphlet 55009. Pp. 11. Available from U.S. Government Printing Office, Washington, D.C. $.10.

Faith and Learning. Alexander Miller. New York: Association Press, 1960. Pp. 218. $3.50. Christian faith and higher education in America today.

Basic Materials for Florida Junior College Libraries. Edited by Louis Shores and Sarah Reed. Bulletin 22CJC-1, "Reference Books," Pp. 22; Bulletin 22CJC-2, "Magazines," Pp. 40. Available from Florida State Department of Education, Tallahassee. $1.00, each.

The Federal Government and Higher Education. Edited by Douglas M. Knight. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1960. Pp. ix + 203. $3.50, cloth; $1.95, paperbound.

Guidance

Jobs and Futures in Mental Health Work. Elizabeth Ogg. New York: Public Affairs Committee, Inc., 1960. Pp. 28. $.25. Public Affairs Pamphlet No. 296.

Television and Radio News. Bob Siller, Ted White, and Hal Terkel. New York: The Macmillan Company, 1960. Pp. 227. $5.95.

General

Russian - English, English - Russian Dictionary. Edited by O. S. Akhmanova. Baltimore, Md.: Ottenheimer Publishers, Inc., 1960. Pp. 569. $4.95, thumb indexed; $3.95, plain.

Research Relating to Mentally Retarded Children. Washington, D.C.:

U.S. Children's Bureau, 1960. Pp. 92. Available from U.S. Government Printing Office, Washington, D.C. $.35.

The Statesman's Year-Book, 1960-61. Edited by S. H. Steinberg. New York: St. Martin's Press, 1960. Pp. xxvi + 1677. $9.50.

Pronunciation Facilities of English Words. Edited by William Grossman. Passaic, N.J.: Language Publication Society, 1960. Pp. 88.

The Story of Language. Mario Pei. New York: The New American Library, 1960. Pp. 431. $.75. A new Mentor book.

Annotated Bibliography of Materials in Economic Education, 1960-61. Available from Joint Council on Economic Education, 2 W. 46th St., New York, N.Y. Pp. 52. $.50.

Understanding and Teaching the Dependent Retarded Child. Louis E. Rosenzweig and Julia Long. Darien, Conn.: The Educational Publishing Corp., 1960. Pp. 185. $4.25.

The Countdown on Segregated Education. Edited by William W. Brickman and Stanley Lehrer. New York: Society for the Advancement of Education, 1960. Pp. 170. $3.50, cloth; $2.25, paperbound.

Understanding the U.S.S.R.; A History of Russia and the U.S.S.R. New York: Collier's Encyclopedia, 1960. Pp. 24. $.25. A teaching aid.

Schools in Our Democracy. Lawrence G. Derthick. Washington, D.C.: U.S. Office of Education, 1960. Pp. 28. Available from U.S. Government Printing Office, Washington 25, D.C. $.15; discounts in quantity.

Audio-Visuals

Educators Guide to Free Films and **Educators Guide to Free Filmstrips.** (Twelfth Editions.) Randolph, Wis.: Educators Progress Service, 1960. Pp. xi + 639 and ix + 163. $9.00 and $6.00, respectively.

100 Selected Films in Economic Education. New York: Joint Council on Economic Education, 1960. Pp. 34. $.75.

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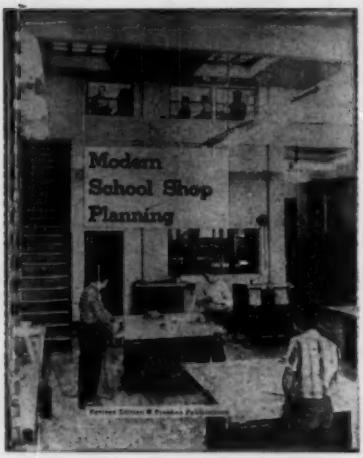

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